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Massachusetts

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THE MAYOR'S ADDRESS

AT THE

ORGANIZATION OF THE CITY GOVERNMENT

JANUARY 4, 1904

AND

THE ANNUAL REPORTS

MADE TO THE CITY COUNCIL

FOR THE YEAR 1903

PUBLISHED BY ORDER OF THE CITY COUNCIL
UNDER THE DIRECTION OF THE
CITY CLERK

J.A.CUMMINGS
PRINTING CO.
172 OLIVER ST.
BOSTON.

INAUGURAL ADDRESS

OF

HON. AUGUSTINE J. DALY

JANUARY 4, 1904

Gentlemen of the City Council:—

We have assembled for the purpose of being duly inducted into the offices to which we have been elected for the ensuing year. Sensible of the responsibility which such action entails, and with the citizens of Cambridge expectant of the best results of our labors, it is of the utmost importance that we soberly weigh at the present time some of the problems that are before us for solution.

We have been elected to give the City a broad, dignified and business-like administration, and in proportion as we succeed in carrying out this policy, we shall receive the cordial support of our fellow citizens.

Let us hope that when we shall have finished our labors for the year, we may find that our aim has been accomplished. To this end it behooves every member of the City Government to feel his individual responsibility and to speak and act at all times with the sincere desire of contributing his share toward an administration worthy of the traditions and ideals of our great City.

Owing to the lateness of the election the present year, a very limited time was at my disposal for consultation with the heads of the various departments and for investigation into the affairs of each.

I shall content myself, therefore, at this time, with calling briefly to your attention a few of the very important matters which will be placed before you for consideration the coming year.

The Auditor has given me the following short statement of the City's debts, borrowing capacity and limit of taxation.

	1902.	1903.	Decrease.	Increase.
Funded City Debt	$5,316,900 00	$5,489,900 00	.....	$173,000 00
Sinking Funds	1,095,255 09	1,108,978 49	.....	13,723 40
Net Funded City Debt	$4,221,644 91	$4,380,921 51	.....	$159,276 60
Funded Water Debt	$3,350,600 00	$3,350,600 00	.....	.....
Sinking Fund	1,107,635 98	1,262,821 46	.....	$155,185 48
Net Funded Water Debt	$2,242,964 02	$2,087,778 54	$155,185 48	.....
Net Valuation	$97,273,334 00	$103,404,328 00	.....	$6,130,994 00
Borrowing Capacity	395,003 91	551,121 20	.....	156,117 29
Limit of Taxation for Municipal Purposes, outside of the Sinking Fund requirements, State and County Taxes and Metropolitan Assessments based on the net valuation	$1,167,280 00	$1,240,852 00	.....	$73,572 00

WATER BOARD.

The report of this Board is of interest and importance as it deals with the question of the supply of water for Fresh Pond. The report of the Engineer, Freeman C. Coffin, and that of the Board should be read by every member of the Council. The City Council has already authorized a petition to the Legislature for authority to issue water bonds to the amount of five hundred thousand ($500,000) dollars for the purpose of constructing a new supply pipe from Hobbs Brook to Fresh Pond, according to the recommendation of the Board and Engineer.

The Board has wisely taken the precaution of connecting with the Metropolitan System in case the need should arise of a temporary supply.

The Water Board also recommend a suitable appropriation for the purpose of completing some of the unfinished work around Fresh Pond, especially that portion of Kingsley Park adjacent to the south side of the Pond. Such expense in former years has been paid out of surplus water receipts. It seems that such an appropriation would be reasonable and this work would be beneficial to the surroundings of the Pond, and I therefore recommend the matter to your consideration.

PARKS.

The City is engaged in the creation of a comprehensive development of River Parks which serve the dual purpose of giving our citizens a beautiful park drive and also giving value to large areas of land which were formerly unused. The shore of the Charles River was taken by the City for park purposes and the work of park construction has steadily progressed, and more than a million dollars have been expended. There has also been constructed other parks throughout the City. Cambridge Field has been given to the people as a play-ground.

Park expenditures have been large and maintenance account is a heavy and increasing one, yet it would be deemed unwise to pause in completing the river drive-way, for it is from this that the full value will be given to our people.

We are pledged to our river work and to the building of the dam, and it is from the river that we may evidently expect a large return in both health and finance. It is along the river, therefore, that we should direct our efforts.

The members of the Park Commission are unanimously of the opinion that whatever appropriations are given for construction during the coming year should be expended in completing the river drive-way. The Commission also calls the attention of the City Government to the advisability and necessity of making an appropriation which shall be used for the purpose of caring for the trees throughout the City.

The subject of municipal baths and gymnasia is treated at some

length in the report of the General Superintendent of Parks. While I make no recommendation with reference to these subjects at this time, they are certainly of great importance, and from the attention which has been paid to them by other cities, it would seem to me that our City Government should carefully examine the recommendations, as contained in this report, and give them that thought which the importance of the subjects seem to require.

OVERSEERS OF THE POOR.

During the year there have been several changes in this department. Capt. Martin Eldridge, Superintendent of the City Home, tendered his resignation during the year, and that of his wife as Matron, and in his place Charles E. Goodrow, and his wife, Emma A., were elected respectively Superintendent and Matron.

Dr. Lewis L. Bryant, the City Physician, tendered his resignation on May 1st, after a continuous service of twenty years, and Dr. William G. Brousseau was appointed in his place.

In October Dr. Charles Bullock and Charles Walker tendered their resignations as Overseers and the same were duly accepted.

This department during the year just closed has spent $98,284.56. For the details of the expenditure reference may be made to the excellent report of the Overseers which has been submitted to the City Government.

It is only necessary to look at the figures to show the importance of this department of the City's administration, and I trust that much care and thought will be given to its wants and needs during the coming year.

PUBLIC BUILDINGS.

This department reports that the new Kelley School was opened for use at the beginning of the school term. The building has proved to be very satisfactory in being well lighted and ventilated and accommodates eight hundred pupils.

The new Fletcher School is now in process of construction.

The three armories, formerly occupied by the militia companies, have been vacated. This places the entire upper floors of the City Buildings of Brattle and Central Squares at the disposal of the City for any uses which may be required. The lease of the Beech Street Armory does not expire until July, 1904. Until that time this building is available for any purposes for which it may be needed.

The Superintendent, in his report, calls attention to the condition of the various public buildings of the City and asks that a liberal sum be appropriated for further necessary repairs, and your attention is invited to this subject.

STREET DEPARTMENT.

You will find in the report of the Superintendent of Streets many suggestions and recommendations, especially with reference to bridges, salaries, crossings, brick side-walks, watering carts, sprinkling contracts, paving, Concord Avenue widening, subway under the Fitchburg Railroad tracks, acceptance of streets, Bolton Street, unused driveways, board walks, field stone, purchase of a stone ledge, storage yard near the Fitchburg Railroad, handling freight at Raymond Street, employment of tally men, permit bonds, books and card indexes.

These headings only are given and the members of the City Council are referred to the report itself for details.

SCHOOLS.

The statistics of the school department show that on the first of December the number of the pupils in the day school was 14,935, number of teachers, 428. The evening school, 723 pupils, teachers, 58.

Total cost of the day school	$429,554.40
Total cost of the evening school	10,926.27

A new school will be needed in Ward 7 for grammar and primary grades, the City now owning a lot suitable for that purpose.

I recommend an ample appropriation for vacation schools.

HEALTH DEPARTMENT.

There has been no out-break of contagious diseases during the past year, and their prevalence has been rather below the average.

The great need of the City, from the view point of preventive medicine, is a hospital with ample accommodations for cases of diptheria and scarlet fever with the ward for the care of cases of measles.

FIRE DEPARTMENT.

For this department the City has purchased land for an engine house at Wyeth Square, and the department asks for a house to be built upon this land during the coming year.

CEMETERY DEPARTMENT.

The Cemetery Commissioners have called the attention of the City Government to a proposal to enlarge the present cemetery by the purchase of land adjoining. This should be a matter of serious consideration by the members of the City Council during the coming year, and all information obtainable should be gathered in reference to it, to the end that if any action is taken, it shall prove wise and prudent and for the best interests of the cemetery and the City.

You are asked to carefully peruse the report of the Commissioners with this in view.

ELECTRICAL DEPARTMENT.

In the report of the City Electrician, I wish at this time, to simply call the attention of the members of the City Council to that part dealing with the fire alarm system of the City. Although all parts of the report are interesting reading and of importance and value, it seems that that part dealing with the fire alarm system is of the utmost importance and should receive early and careful consideration.

ENGINEERING DEPARTMENT.

The City Engineer has called attention to sewers, abolition of grade crossings, approach to Cambridge Bridge, widening of Concord Avenue, Alewife Brook, and the Lechmere Canal Bridge.

Each of these is deserving of your close study and the City Engineer earnestly recommends a beginning this year upon the question of the abolition of grade crossings.

Perhaps the question which will first engage your attention is the approach to the new Cambridge Bridge. The Engineer suggests that this should be settled early in the year and that the money should be provided for the construction of the approach during the coming season. He informs me that Mr. Jackson, the Engineer of the Bridge Commission, claims that it is hoped the steel work of the Bridge will be practically completed in the spring of 1905, and it is now the intention of the City of Boston to start the construction of the approach on the Boston side during the season of 1904.

The Bridge Act, Chapter 467 of the Acts of 1898, Section 6, provides in substance that the approach to the bridge on the Cambridge side should be laid out by the Commission as a highway not less than one hundred feet in width from the junction of Broadway and Main Street, near Kendall Square to the bridge, and that the City Engineer of the City of Cambridge, acting for the City, shall construct the approach at or before the completion of the bridge.

Section 8 provides that the cost of laying out and constructing the approach and the work on the Cambridge end shall be paid by the City of Cambridge. It, therefore, seems imperative that we should deal with this problem at once.

PUBLIC LIBRARY.

The Trustees of the Public Library, in their report, have called attention to the recommendation of the Librarian for a new catalogue or a new finding list, and also to the question of branch libraries.

They express their opinion that the establishment of branch libraries in other sections of the City, in addition to the one now in existence in East Cambridge, is becoming more and more urgent, and they also express the hope that if any action should be taken in this connection, it may be accompanied by a suitable appropriation, as

their experience with the branch library at East Cambridge leads them to believe that branches will not be successful unless well maintained.

They again impress upon the City Council that the work of the library in connection with the schools may be made more profitable if an assistant could be employed who would give her whole time to the work. They also recommend a small expenditure on the part of the City for the purpose of placing a collection of books in the rooms of every church, school, club, and association in the City.

The resignation of the Librarian, William L. R. Gifford, has been received. His administration has been eminently successful and it is to be regretted that he cannot be retained in the service of the City.

POLICE DEPARTMENT.

The report of the Chief of Police contains six recommendations, and I wish at this time to call your attention only to the first, which requests that a provision be made for better accommodation for women prisoners during their detention at Station 1.

I recommend that some action be taken to provide better facilities for the care of women at this station.

The report treats of other matters of interest, and reference may be made to it for information.

SEALER OF WEIGHTS AND MEASURES.

In the report of the Sealer of Weights and Measures special attention is called to the use by a certain class of pedlers of short measures, and the Sealer recommends that one of the conditions upon which licenses be issued to pedlers is that all measures used should be subject to the approval of the department.

INSPECTOR OF MILK.

I simply refer to the report of the Inspector of the department for facts and figures regarding the same.

GENTLEMEN OF THE CITY COUNCIL: —

It is unnecessary to advise that judgment, fidelity and the highest motives shall inspire all of your official acts during the coming year. With a firm hope that we may serve the City with honesty, prudence and industry, let us enter upon our duties with enthusiasm, relying at all times upon the help and protection of Him in Whom all must trust.

ANNUAL REPORTS

REPORT OF THE CAMBRIDGE WATER BOARD

CAMBRIDGE, December 15, 1903.

To the Honorable, the City Council of the City of Cambridge:—

The thirty-ninth annual report of the Cambridge Water Board for the year ending November 30, 1903, is herewith submitted for your consideration.

The different reservoirs of the City, at Hobbs Brook, Stony Brook and Payson Park, are all in good condition, as are all the works under the charge of the Board with the exception of the main supply pipe from Stony Brook, and the grounds around Fresh Pond, the improvement of which was discontinued this year, owing to the declination of the City Council to make the extra appropriation necessary for that purpose, which has been made for several years. The main supply pipe, and its condition, will be considered later in this report.

There are only two unsettled claims for land damages now pending, namely, one for land taken at Payson Park Reservoir from the Payson Park Trustees, and the other for land taken from Reuben Wyman at Hobbs Brook basin. The former is now in the course of settlement, and will probably be finally disposed of in a very short time. The latter is the subject of a suit in the Superior Court, and negotiations are now pending for its settlement.

FINANCIAL STATEMENT IN BRIEF.

The total cost of the Water Works to November 30, 1902, was	$5,724,301 60
There was expended during the year on Construction Account	26,353 55
So that the total cost to November 30, 1903, was	$5,750,655 15

WATER BOND ACCOUNT.

The whole amount of bonds outstanding is	$3,350,600 00
Deducting from this sum the present value of the Water Debt Sinking Fund, exclusive of the note of the City for $200,000	1,062,821 46
Leaves as the net Water Debt	$2,287,778 54
For further details of the financial condition of the department, reference may be made to the statement of the Registrar appended to this report. From that statement it appears that the excess of receipts over expenditures during the past year is the sum of	$1,923 82
The net water debt November 30, 1902, was	$2,442,964 02
" " " " " " 1903, "	2,287,778 54
Reduction of net debt during the year	$155,185 48

FRESH POND.

In making up the annual estimates for the past year, the Board recommended an appropriation of ten thousand dollars for the purpose of completing some of the unfinished work around the Pond, especially the portion of Kingsley Park adjacent to the south side of the Pond, which has long been in a rough and unsightly condition. The City Council refused to make the appropriation and consequently nothing could be done. It seems to the Board to be short-sighted policy to neglect the improvement of the grounds around the Pond, for the sake of a temporary saving in the expense. Since the park development was begun in 1896, all the expense has been paid for out of surplus water receipts, and none from the issue of bonds. The Board trust that they will no longer be compelled, for lack of funds, to neglect this work, and recommend a suitable appropriation for the ensuing year, so that the work may be resumed in the spring or fall.

WATER BASINS.

The water in Hobbs Brook and Stony Brook basins remains at about the usual level, but the water in Fresh Pond is now 5.31 feet below high water mark, and only about 2.55 feet above the level of the intake pipe. In view of the increasing consumption of water, and the specially large consumption which is always a feature of cold weather, and for other reasons hereinafter set forth, the Board have taken precaution to prevent a water famine by causing a connection to be made with the pipe of the Metropolitan Water and Sewerage Board, who have consented to supply the City temporarily, in case of sudden need. The connection has been made with the pipe where it crosses the Common, in order to avoid disturbing the surface of any street. A Venturi meter has been connected with the pipe so that the water supplied may be accurately measured and paid for according to the quantity consumed. The Board acknowledge with gratitude the courtesy of the Metropolitan Water and Sewerage Board, in lending their aid to provide for the emergency which confronts the City.

STONY BROOK OVERFLOW.

The overflow at Stony Brook dam this year shows a considerable decrease, as compared with that of the year preceding, in spite of a larger rainfall this year.

The overflow for the year ending December 1, 1902, was	6,539,100,000	gallons.
The overflow for the year ending December 1, 1903, was	6,437,500,000	"
Decrease	101,600,000	gallons

This fact has no special significance, however, and the decrease has no connection with the increasing consumption of water in the City, as the main supply pipe from Stony Brook has delivered substantially the same quantity of water at Fresh Pond in both years.

CHEMICAL EXAMINATION OF WATER FROM FRESH POND. — AVERAGES BY YEARS.

Parts per 100,000.

	Free Ammonia.	Chlorine.	Nitrogen as Nitrates.	Nitrogen as Nitrites.
1902	.0045	.55	.0309	.0004
1903	.0047	.59	.0241	.0003
Average for past ten years	.0050	.61	.0269	.0004

RAIN-FALL.

The annual rain-fall for the past ten years at Fresh Pond is as follows: —

	Inches.
1894	35.85
1895	47.12
1896	38.82
1897	42.53
1898	52.42
1899	37.28
1900	46.89
1901	46.20
1902	43.31
1903	44.23
Average	43.46

The rain-fall for the year at Hobbs Brook was 47.42 inches; at Stony Brook, 45.97 inches.

From this table it will be seen that the year 1904 is likely to be a dry year.

CONSUMPTION OF WATER.

The total consumption of water for the year ending December 1, 1903, was	3,160,704,360 gallons
For the year ending December 1, 1902	2,930,553,545 "
Excess of consumption this year	230,150,815 gallons
The excess of consumption in the year ending December 1, 1902, over the year ending December 1, 1901, was	145,397,105 "
Difference — excess of 1903 over excess of 1902	84,753,710 gallons

In 1893 the total consumption was 2,234,863,924 gallons. The annual increase or decrease, since that year is fully shown in the report of the Engineer, herewith filed.

MAIN SUPPLY PIPE FROM STONY BROOK.

As the City Council is probably aware, the entire supply, exclusive of the natural resources of Fresh Pond, comes through one main pipe leading from Stony Brook dam to Fresh Pond. The inadequacy of this pipe to supply the present demands of consumers has been the subject of two special communications from the Water Board to the City Council, one dated October 19, 1899, and the other dated January 29, 1900, and has also been fully presented in the last four annual reports. In these communications and reports the Board have urged upon the City Council the necessity of either adopting a complete meter system to prevent waste and so reduce consumption, or of providing for an increased supply, by laying an additional main pipe to convey a larger quantity of water to Fresh Pond. These recommendations have been disregarded, and as a result the City is now facing the danger of an insufficient supply of water.

In order to ascertain if any relief could be afforded by a thorough examination of the Stony Brook main, the Water Board, in June last, recommended that an appropriation be made for the employment of a competent engineer, to examine and report upon the condition of the main pipe and advised the application of a Venturi meter to ascertain the exact amount of the flow, and also suggested the making of surveys for a new pipe line; and accordingly the City Council on the twenty-third day of June last, made an appropriation of five thousand dollars for that purpose. The services of Mr. Freeman C. Coffin, an expert hydraulic engineer, were accordingly engaged by the Board, and he was given full power to take such measures as he might think expedient in the direction of testing the pipe, improving its efficiency, if possible, and of making the necessary surveys for a new line.

The present pipe line consists of 5,100 feet of thirty-six-inch cast-iron pipe, from the dam at Stony Brook basin to a point near the pumping station at the Waltham Water Works, and from thence of 34,340 feet of thirty-inch cast iron pipe to the outlet at Fresh Pond. The difference in height between the crest of the dam at Stony Brook and high-water mark at Fresh Pond is about sixty-four feet. The pipe line has now been in use for sixteen years. Careful tests made after the insertion of the Venturi meter show a progressive change in the capacity of the pipe. The estimated daily discharge of the pipe, when new, was nine and one-half million gallons. A measurement in 1894 showed about eight million gallons, and the recent test this year a little less than six million gallons. The remainder of the amount consumed comes from the storage and the small natural yield at Fresh Pond. On opening the pipe, the interior

surface was found to be coated with tubercles, such as are found in all cast-iron pipe, in a greater or less degree, and which diminish the capacity of the pipe, and cause also a further loss by friction. It is probable that this condition exists throughout the entire length of the pipe. These tubercles could be easily removed, if the pipe were large enough to be cleaned by hand-scraping, but, as it is, can only be reached by some mechanical device to be sent or drawn through the pipe. An attempt will be made by Mr. Coffin in the spring to clean a portion of the pipe in this way, and, if the experiment succeeds, the process will be applied to the remainder of the pipe. The cleaning of the pipe will interrupt the delivery of the water for several weeks, at least, and, during that time, it will be necessary to purchase water from the Metropolitan Board, and provision has been made for this as above stated. Even if the experiment of cleaning is entirely successful, the increased consumption of water indicates a pressing need of a new line, as heretofore urged by this Board in its annual reports. In case of failure to restore capacity of the pipe, Mr. Coffin estimates that the supply will run short about July or August, 1904, if the next year is a very dry one, otherwise in the summer of 1905. In case of success, there will only be time enough to lay the new pipe without undue haste, before the consumption of water outruns the supply. This is the opinion of Mr. Coffin, as well as the judgment of the Board.

After considering with care the statements, and the results of the researches of Mr. Coffin, the Board have recommended the City Council to pass an order, authorizing the Mayor to petition the Legislature for authority to issue water bonds to the amount of five hundred thousand dollars, for water works construction, so that the contracts may be made for a new pipe line, as soon as the surveys shall have been made. There should be no delay in considering and passing such an order, as the rules of the Legislature require that the petition should be presented before the first Wednesday of February next.

In order that the City Council may have all possible information at its command, the Board have caused the elaborate report of Mr. Coffin to the Water Board to be printed in full, and annexed hereto. It is not necessary that the Board should attempt to add anything to that report, as it contains the fullest possible information and it is hoped that the City Council will give it careful attention.

The suggestion is sometimes made, that Cambridge should enter the Metropolitan system, as an alternative to the development of its own resources. That such an alternative should not now be considered, is fully demonstrated, by Mr. Coffin in his report, to which reference is made for further particulars.

In 1898 the average daily consumption was 7,650,195 gallons. The report to the Water Board for that year, contains this prediction: "When the daily consumption amounts to 8,500,000 gallons, the capacity of our present delivery pipe connecting Stony Brook with Fresh Pond will have reached its limit, and another pipe should be laid large enough, with the present pipe, to keep Fresh Pond full, and equal to any future demands of our water takers, and equal to the largest daily supply which our Stony Brook system is capable of furnishing." That time is now at hand, and the need of immediate action is urgent, for the daily average consumption has reached the amount of 8,659,463 gallons.

The Board have done all that is in their power, in presenting the facts, and recommending your prompt action. Until you act, the Board is powerless and the responsibility is yours.

Respectfully submitted,

WILLIAM B. DURANT,
GEORGE H. HOWARD,
JOHN F. O'BRIEN,
ANDREW J. RADY,
EDMUND H. STEVENS,
Cambridge Water Board.

REPORT OF THE WATER REGISTRAR

WATER REGISTRAR'S OFFICE,
CAMBRIDGE, December 1, 1903.

To the Cambridge Water Board : —

GENTLEMEN : — In compliance with the requirements of the City Ordinance I present the thirty-ninth annual report of the operations of this department showing the receipts, expenditures and abatements, together with a statement of the number of water takers, etc., for the year ending November 30, 1903.

Amount of bills remaining unpaid November 30, 1902 : —

Water rates	$2,347 12	
Supplies and repairs	1,281 33	
Off and on	126 00	
Seals	9 25	
Maintenance account	465 88	
Construction account	77 63	

Amount of bills placed in hands of City Treasurer for collection from November 30, 1902, to November 30, 1903 : —

Water rates	$342,940 51	
Supplies and repairs	3,748 62	
Off and on	645 00	
Rents	168 00	
Seals	114 50	
Maintenance account	821 38	
Construction account	5,919 55	
Total bills		$358,664 77

There has been collected : —

Water rates	$336,946 40	
Supplies and repairs	4,260 50	
Off and on	620 00	
Rents	168 00	
Seals	113 75	
Maintenance account	669 35	
Construction account	5,727 85	

There has been abated :—

Water rates, off and on, and seals, supplies and repairs, and Construction account	$3,756 45	

There remains uncollected :—

Water rates	$4,622 73	
Supplies and repairs	769 45	
Off and on	130 00	
Seals	10 00	
Maintenance account	600 96	
Construction account	269 33	
		$358,664 77

EXPENDITURES.

Construction (General account)	$26,353 55	
Maintenance (General account)	64,289 51	
		$90,643 06

ABATEMENTS.

Water rate, and supply and repair bills to the amount of	$3,756 45

REFUNDS.

Water rates to the amount of	$3,169 06	
Which amount deducted from receipts	336,946 40	
Leaves net receipts for water	$333,777 34	
Add off and on, fines, rents, seals and Maintenance account	1,571 10	
Makes net receipts of rates, fines, etc.		$335,348 44

OFF AND ON.

Water has been shut off for non-payment of rates, or per order on account of vacancy, and seals have been applied to fixtures by request of owners, as follows :—

Water shut off in 1903	684
Supplies let on, shut off in 1903	517
Supplies let on, shut off in previous years	98
New supplies let on	136
Seal locks applied to fixtures in 1903	738
Seal locks removed, put on in 1903	385
Seal locks removed, put on in previous years	364

Statement of yearly revenue received from water rates since the purchase of the works by the City : —

From April 28, 1865, to December 1, 1865	$32,367 19
From December 1, 1865, to December 1, 1866	40,073 27
From December 1, 1866, to December 1, 1867	53,733 62
From December 1, 1867, to December 1, 1868	$63,747 42
From December 1, 1868, to December 1, 1869	76,149 30
From December 1, 1869, to December 1, 1870	92,605 95
From December 1, 1870, to December 1, 1871	111,782 65
From December 1, 1871, to December 1, 1872	127,201 30
From December 1, 1872, to December 1, 1873	146,117 32
From December 1, 1873, to December 1, 1874	153,634 27
From December 1, 1874, to December 1, 1875	138,880 37
From December 1, 1875, to December 1, 1876	179,166 76
From December 1, 1876, to December 1, 1877	154,843 59
From December 1, 1877, to December 1, 1878	157,443 91
From December 1, 1878, to December 1, 1879	164,681 90
From December 1, 1879, to December 1, 1880	173,325 49
From December 1, 1880, to December 1, 1881	170,062 73
From December 1, 1881, to December 1, 1882	177,430 80
From December 1, 1882, to December 1, 1883	179,361 89
From December 1, 1883, to December 1, 1884	161,526 27
From December 1, 1884, to December 1, 1885	185,544 36
From December 1, 1885, to December 1, 1886	199,404 43
From December 1, 1886, to December 1, 1887	204,748 64
From December 1, 1887, to December 1, 1888	211,156 27
From December 1, 1888 to December 1, 1889	221,124 70
From December 1, 1889, to December 1, 1890	231,116 32
From December 1, 1890, to December 1, 1891	227,054 53
From December 1, 1891, to December 1, 1892	237,527 08
From December 1, 1892, to December 1, 1893	242,219 78
From December 1, 1893, to December 1, 1894	250,032 71
From December 1, 1894, to December 1, 1895	268,813 62
From December 1, 1895, to December 1, 1896	281,030 00
From December 1, 1896, to December 1, 1897	291,457 62
From December 1, 1897, to December 1, 1898	297,129 78
From December 1, 1898, to December 1, 1899	302,569 00
From December 1, 1899, to December 1, 1900	319,479 37
From December 1, 1900, to December 1, 1901	320,468 01
From December 1, 1901, to December 1, 1902	323,500 53
From December 1, 1902, to December 1, 1903	333,777 34

Comparative Statement.

	1902.		1903.	
Construction Account. (Hobbs Brook Reservoir.)				
Received.				
From surplus receipts				$12,229 61
From bonds issued		$6,000 00		
Expended.				
Construction of reservoir, land settlements, services of City Solicitor, etc.	$5,947 60			12,229 61
Balance to credit of Construction Account	52 40			
		6,000 00		
Construction Account. (General.)				
Received.				
From City of Waltham and sale of old materials	$749 50		$5,727 85	
From bonds issued	2,500 00		11,025 61	
From surplus receipts			9,717 54	
Balance from 1901	13,998 20			
From premium on bonds	724 65			
		$17,972 35		$26,471 00
Expended.				
Sundry bills and pay rolls	$16,999 14		$8,429 25	
Meters and setting			2,212 51	
Examination of Stony Brook main			3,482 18	
Balance to credit of Construction Account	973 21		12,347 06	
		17,972 35		26,471 00
Maintenance Account.				
Received.				
From "rates, fines, etc."	$331,249 66		$341,604 60	
From supply and repair account.	3,849 15		4,260 50	
From sale of shrubs, grass, etc.	1,583 30		669 35	
Interest for 1902, reappropriated.			3,160 00	
		$336,682 11		$349,694 45
Expended.				
Care and repairs	$63,498 87		$21,649 90	
Work at Fresh Pond	9,996 85		5,840 70	
Payson Park Reservoir			801 81	
Hobbs Brook Reservoir			1,203 07	
Stony Brook			4,025 28	
Supplies and repairs, pipes and fittings			2,499 90	
Salaries			7,103 58	
Pumping, salaries and other expenses			20,704 71	
Ice for drinking fountains	461 47		460 56	
Refunds	3,000 00		3,169 66	
Abatements	3,985 63		3,756 45	
Sinking fund	120,828 75		121,522 50	
Interest on water debt	129,579 00		128,806 50	
Transferred to Construction Account			21,947 15	
Interest on water debt reappropriated			4,280 00	
Excess of receipts	2,171 54		1,923 28	
Interest of 1902 unpaid and reappropriated for 1903	3,160 00			
		336,682 11		349,694 45
Maintenance Account, excess of receipts		$2,171 54		$1,923 28

The excess of receipts in 1903 as shown above, amounting to $1,923.28, has been carried to the sinking fund as required by law.

In addition to the manufactories, business blocks, houses, etc., supplied through meters, water is supplied to 17,811 families, 619 stables, 1,857 horses, 95 cows, 173 shops, 381 offices and stores, by the following fixtures, viz: —

20,535 faucets,	34 urinals,
7,516 wash basins,	7 yard hydrants,
10,787 wash tubs,	1 fountain.
7,005 bath tubs,	13 tumbler washers.
186 slop closets,	1,913 hand hose,
17,968 pan closets,	6 motors.
4 hopper closets,	

Also,

1,005 fire hydrants (beside 19 on private premises).
8 fire reservoirs.
28 drinking fountains in public squares.
62 street watering standpipes.
4 public sanitaries.

The above schedule of fixtures does not include those in schoolhouses, engine houses, police stations, and other City buildings, or where the use of water is covered by meter.

The usual house-to-house inspection has been made with very satisfactory results.

Respectfully submitted,

WALTER H. HARDING,
Registrar.

ANNUAL STATEMENT OF THE WATER REGISTRAR TO THE COMMITTEE ON ACCOUNTS, DECEMBER 1, 1903

Uncollected November 30, 1902: —

Water rates	$2,347 12	
Supplies and repairs	1,281 33	
Off and on	126 00	
Seals	9 25	
Maintenance account	465 88	
Construction account	77 63	
		$4,307 21

Bills placed in the hands of City Treasurer for collection from December 1, 1902, to December 1, 1903: —

Water rates	$348,940 51	
Off and on water	645 00	
Seals	114 50	
Rent	168 00	
Supplies and repairs	3,748 62	
Maintenance bills	821 38	
Construction bills	5,919 55	
		354,357 56
Total bills		$358,664 77

There has been collected: —

Water rates	$336,946 40	
Off and on ledger	620 00	
Rent ledger	168 00	
Seals	113 75	
Maintenance account	669 35	
Construction account	5,727 85	
Supply and repair bills	4,260 50	
Total collections		$348,505 85

There has been abated: —

Water rates, off and on, and seals, supplies and repairs, and Construction account	$3,756 45

There remains uncollected: —

Water rates	$4,622 73		
Supplies and repairs	769 45		
Off and on	130 00		
Seals	10 00		
Maintenance account	600 96		
Construction account	269 33		
		$6,402 47	$358,664 77
Total bills for collection		$358,664 77	
Less abated	$3,756 45		
Less refunded	3,169 06		
Less unpaid	6,402 47		
		$13,327 98	
Net receipts			$345,336 79

Attest:

WALTER H. HARDING,
Registrar.

CAMBRIDGE, December 15, 1903.

We have examined the accounts of the Water Registrar and find that they correspond in the amounts collected, abated, refunded, and uncollected with the statement submitted by the City Treasurer and verified by the City Auditor.

WILLIAM B. DURANT,
Committee on Accounts.

CITY OF CAMBRIDGE,
OFFICE OF CITY TREASURER,

December 1, 1903.

To the Cambridge Water Board:—

I give you herewith a record of the transactions between the Water Office and the City Treasurer's Office during the year ending November 30, 1903.

Gross collections for account of water works—"Maintenance," "Water Rates" and "Supply" Accounts	$346,534 45
Gross collections for account of water works—"Construction" Account	5,727 85
"Abatement" certificates received and paid on "Water Rates" .	3,756 45
"Refund" certificates received and paid to amount of	3,169 06
Uncollected bills in my hands November 30, 1903, for account of "Water Rates," "Maintenance" and "Supply" Accounts . .	6,133 14
Uncollected bills November 30, 1903, for account of "Construction"	269 33

Very respectfully,

WM. W. DALLINGER,
City Treasurer.

I have examined the above statement and find it correct.

HARRY. T. UPHAM,
City Auditor.

REPORT OF THE SUPERINTENDENT OF WATER WORKS

CAMBRIDGE, December 12, 1903.

To the Honorable Water Board of the City of Cambridge:—

GENTLEMEN:— Complying with the City Ordinance, I herewith submit the twenty-ninth annual report of the Superintendent, for the year ending November 30, 1903.

	Gallons.
Total water pumped	3,160,704,360
Quantity of water sold by meter	1,074,317,752
Quantity of water used for sprinkling streets	60,500,000
Quantity of water used for flushing sewers	4,000,000
Quantity of water used for cleaning sanitaries	7,500,000
Quantity of water used for public buildings	34,776,533
Quantity of water used for drinking fountains	35,000,000
Quantity of water used for testing meters	34,350
Quantity of water used for fire purposes	2,500,000
	1,218,628,635

Number of gallons daily for each inhabitant on the total amount pumped, 89.56.

Number of gallons daily for each inhabitant on total amount used by domestic meters, and including water used for flushing pipes, blowing off dead ends, puddling trenches, and water used for hose and private stables, 55.03.

COMPARATIVE STATEMENT OF TOTAL PUMPING DURING THE PAST TEN YEARS.

Date.	Total Yearly Pumping.	Increase or Decrease.	Average Daily Pumping.	Increase or Decrease	Gallons to each inhabitant daily.
1894	2,127,878,627	106,985,297 decrease	5,829,804	293,111 decrease	69.19
1895	2,190,781,892	62,903,265 increase	6,002,142	172,338 increase	71.65
1896	2,413,506,557	222,724,665 "	6,594,280	592,138 "	75.90
1897	2,441,340,196	27,833,639 "	6,688,603	94,323 "	76.46
1898	2,792,321,110	350,980,914 "	7,650,195	961,592 "	85.69
1899	2,882,570,430	90,249,320 "	7,897,453	247,258 "	87.16
1900	2,651,277,240	231,293,190 decrease	7,263,773	633,680 decrease	78.69
1901	2,785,156,440	133,879,200 increase	7,630,566	366,793 increase	80.87
1902	2,930,553,545	145,397,105 "	8,028,914	398,348 "	85.27
1903	3,160,704,360	230,150,815 "	8,659,463	630,549 "	89.56

COMPARATIVE STATEMENT OF DOMESTIC PUMPING DURING THE PAST TEN YEARS.

Date	Domestic Yearly Pumping.	Increase or Decrease.	Average Daily Pumping.	Increase or Decrease	Gallons to each inhabitant daily.
1894	1,547,943,977	120,291,597 decrease	4,240,942	329,567 decrease	50.34
1895	1,530,152,817	17,791,160 "	4,192,199	48,743 "	50.04
1896	1,730,224,007	200,071,190 increase	4,727,388	535,189 increase	54.42
1897	1,740,357,346	10,133,339 "	4,768,102	40,714 "	54.50
1898	2,064,438,585	324,081,239 "	5,655,996	887,894 "	63.35
1899	2,085,998,805	21,560,220 "	5,715,070	59,074 "	63.08
1900	1,799,732,048	286,266,757 decrease	4,930,772	784,298 decrease	53.42
1901	1,875,617,660	75,885,612 increase	5,138,678	207,906 increase	54.07
1902	1,864,195 170	11,422,490 decrease	5,107,384	31,294 decrease	54.24
1903	2,063,250,150	199,054,980 increase	5,652,740	545,356 increase	58.46

Total amount of coal consumed (in pounds)	4,462,469
Daily average coal consumed (in pounds)	12,226
Coal consumed per million gallons pumped (in pounds)	1,412
Highest water elevation in Fresh Pond was on April 23rd	14.64
Lowest water elevation in Fresh Pond was on November 29th	11.50
Average height of water in Fresh Pond	13.08
Highest water elevation in Stony Brook Reservoir was on March 24th	82.25
Lowest water elevation in Stony Brook Reservoir was on June 4th	79.85
Highest water elevation in Hobbs Brook Reservoir No. 1, Lincoln Street, was on March 24th	181.80
Lowest water elevation in Hobbs Brook Reservoir No. 1, Lincoln Street, was on October 1st	180.50
Highest water elevation in Hobbs Brook Reservoir No. 2, Winter Street, was on June 22nd	181.75
Lowest water elevation in Hobbs Brook Reservoir No. 2, Winter Street, was on December 1, 1902	178.48
Total rainfall at Fresh Pond Pumping Station	44.23
Total rainfall at Stony Brook Reservoir	45.97
Total rainfall at Hobbs Brook Reservoir	47.42

TOTAL RAINFALL FOR THE PAST TEN YEARS.

Month.	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
December	5.23	4.43	1.90	1.63	4.31	2.00	1.30	1.74	7.71	4.37
January	3.05	3.57	2.46	3.32	4.75	3.85	4.40	1.55	1.97	3.19
February	2.91	1.07	5.62	2.36	3.61	3.99	7.34	.79	4.29	3.50
March	.84	2.68	4.37	2.66	2.03	5.94	5.10	6.89	6.16	4.89
April	2.94	4.15	1.70	2.82	6.22	1.32	1.99	8.80	3.56	3.98
May	4.63	2.39	2.42	4.24	3.92	.77	5.52	6.96	1.08	.35
June	.81	2.76	2.33	5.16	1.82	3.17	2.75	1.33	2.40	8.46
July	2.88	3.28	2.65	4.68	4.50	3.12	2.31	4.70	3.14	3.72
August	1.63	4.71	2.45	5.06	7.34	3.21	2.80	4.17	3.62	3.81
September	2.40	1.83	6.29	3.22	1.78	4.63	4.40	3.74	3.36	1.72
October	5.19	10.16	3.10	.55	7.22	3.08	3.75	2.86	4.65	4.54
November	3.34	6.09	3.53	6.83	4.92	2.20	5.23	2.67	1.37	1.70
Total	35.85	47.12	38.82	42.53	52.42	37.28	46.89	46.20	43.31	44.23

FRESH POND AND SURROUNDINGS.

The small appropriation made for work about the Pond this year has not permitted the employment of as many men as usual, and the condition of the roads, walks and planted sections has not been what we could have wished.

The low water in the Pond and the consequent growth of weeds therein has made a great amount of extra work necessary and for nearly the whole season two or more men have been constantly at work removing the same.

Grass not wanted by the department has as usual been sold to the highest bidder.

The average height of the Pond has been 13.08.

FRESH POND RESERVOIR.

Date.	Lowest Elevation During Month.	Highest Elevation During Month.	Monthly Rainfall.	Intake Gate.			
				8-inch Opening.		30-inch Opening.	
				Opened.	Closed.	Opened.	Closed.
1902.			Inches.				
December 21.	13.20	.....	.....	During entire		During entire	
December 8.	.....	13.66	.....	month, 28 turns		month, 30 in.	
December.....	.....	.....	4.37				
1903.							
January 29.	12.97	.....	.....	During entire		During entire	
January 7.	.....	13.60	.....	month, 28 turns		month, 30 in.	
January.....	.....	.....	3.19				
February 4	12.95	.....	.....	During entire		During entire	
February 19	.....	13.33	.....	month, 28 turns		month, 30 in.	
February.....	.....	.....	3.50				
March 1.	13.08	.....	.....	During entire		During entire	
March 31.	.....	14.02	.....	month, 28 turns		month, 30 in.	
March.....	.....	.....	4.89				
April 1.	13.96	.....	.....	During entire		During entire	
April 23.	.....	14.64	.....	month, 28 turns		month, 30 in.	
April.....	.....	.....	3.98				
May 31.	13.48	.....	.....	During entire		During entire	
May 1.	.....	14.49	.....	month, 28 turns		month, 30 in.	
May.....	.....	.....	.35				
June 12.	12.93	.....	.....	During entire		During entire	
June 26.	.....	13.56	.....	month, 28 turns		month, 30 in.	
June.....	.....	.....	8.46				
July 19.	12.94	.....	.....	During entire		During entire	
July 2.	.....	13.50	.....	month, 28 turns		month, 30 in.	
July	.....	.....	3.72				
August 30.	12.61	.....	.....	August 6th, 11	August 6th, 7	August 6th, 11	August 6th,
August 1.	.....	12.96	.....	o'clock p.m.,	o'clock a.m.	o'clock p.m.,	7 o'clock a.m.
August	.....	.....	3.81	28 turns		30 in.	
September 30.	12.04	.....	.....	During entire		During entire	
September 3.	.....	12.83	.....	month, 28 turns		month, 30 in.	
September....	.....	.....	1.72				
October 31.	11.83	.....	.....	October 2d, 8.15	October 2d, 8.15	October 2d, 8.15	October 2d,
October 18.	.....	12.26	.....	o'clock p.m.,	o'clock a.m.	o'clock p.m.,	8.15 o'clock
October.....	.....	.....	4.54	28 turns		30 in.	a.m.
November 29.	11.50	.....	.....	November 15th	November 15th	November 15th	November
November 2.	.....	11.98	.....	11.30 o'clock	8.30 o'clock a.m	11.30 o'clock	15th, 8.30
November.....	.....	.....	1.70	a.m., 28 turns		a.m., 30 in.	o'clock a.m.
			44.23				

PUMPING STATION AND GROUNDS.

The grounds about the station have received the usual care and are in good condition.

All of the buildings at the station should be painted this year.

No repairs have been made on the dwellings the past year and they are badly in need of painting.

PAYSON PARK RESERVOIR.

The north basin of the reservoir has been cleaned and the iron fence painted.

The grounds have received a coat of dressing and are in good condition.

The gate house stone work has been pointed in places but will need a thorough overhauling in the near future.

PIPE YARD.

The dwelling and sheds at the yard should be shingled this year.

The stable and shop are in good condition and will need no repairs.

HIGH SERVICE.

Following is the list of streets supplied from the high service : —

Agassiz Street.
Appleton Street, from Highland Street to beyond Hutchinson Street.
Arlington Street.
Avon Hill Street.
Bates Street
Bellevue Avenue.
Bellevue Avenue, west.
Buena Vista Park.
Concord Avenue, from Huron Avenue to Buckingham Street.
Garden Street, from Huron Avenue to Linnaean Street.
Highland Street, from Reservoir Street to Appleton Street.
Hillside Avenue.
Holly Avenue.
Humboldt Street.
Huron Avenue, from Appleton Street to Raymond Street.
Lancaster Street.
Linnaean Street.
Mt. Pleasant Street.
Raymond Street, from Linnaean Street to Walden Street.
Reservoir Street, from Highland Street.
Upland Road, from Richdale Avenue to Huron Avenue.
Vassal Lane, from Huron Avenue.
Vincent Street.
Walnut Avenue.
Washington Avenue.

LIST OF CHECK VALVES IN USE.

Appleton Street at Hutchinson Street.
Avon Hill Street and Linnaean Street.
Concord Avenue at Buckingham Street.
Garden Street and Linnaean Street.
Raymond Street and Linnaean Street.
Upland Road near Mt. Vernon Street.
Vincent Street at Walden Street.

LEAKAGE.

Twenty-two hundred eighty-one (2,281) leaks have been repaired during the year; they were reported as follows: —

One hundred sixty (160) on supplies in street.
One (1) at Pumping Station.
One (1) on Stony Brook main in Watertown.
Three (3) on forty-inch main.
One (1) on twelve-inch main.
Two (2) on ten-inch mains.
Two (2) on eight-inch mains.
Six (6) on six-inch mains.
Two (2) on four-inch mains.
One (1) on two-inch main.
Eighteen (18) on gates.
Three (3) on hydrants.
One (1) on street watering standpipe.
Two thousand eighty (2,080) on premises.

Of the foregoing leaks on premises two thousand fifty-two (2,052) were reported by our inspectors while they were making their annual canvass. They have been repaired by the owners or occupants.

Three hundred thirty-seven (337) on faucets.
Sixteen hundred fifty-five (1,655) on water closets.
Fifteen (15) on pipes.
Twelve (12) on tanks.
Nine (9) on basins.
Fourteen (14) on bath tubs.
Ten (10) on set tubs.

Ten (10) leaks on the foregoing supplies in street have been caused by electrolysis; the cost of repairs has been charged to the Boston Elevated Railway Company.

Twenty-eight bills have been made to the Sewer Department for the cost of repairs made necessary by that Department while constructing its sewers.

I have been unable to get a bid for the repairs of the Third Street siphon as yet but hope we may do so in the early spring.

On July 9th, a dredger, belonging to the Eastern Dredging Company, while at work in Broad Canal broke the twelve-inch siphon across First Street. The repairs were undertaken by George W. Townsend, of Boston, and were finished on the 31st of the same month and the water let on, the work being perfectly tight and satisfactory in every way; these repairs were made at a cost of three hundred ninety-seven dollars and fifty cents ($397.50).

As this leak was not anticipated when the Maintenance appropriation was made, the expense of it and the unusual large number of leaks in the streets reduced the already inadequate appropriation and accounts for the fact that this department has been unable to meet all of the Maintenance expenses for the year.

Number of leaks in street (1902) . . .	96
Number of leaks in street (1903) . . .	160
Increases leakage over 1902 . . .	64

TABLE SHOWING A GAIN OR LOSS IN THE TOTAL CONSUMPTION FOR THE YEAR 1903 OVER THE YEAR 1902.

	Total Consumption 1902.	Total Consumption 1903.	Increase.
December	255,777,480	281,443,360	25,665,880
January	269,265,480	301,018,080	31,752,600
February	236,038,880	250,631,040	14,592,160
March	231,112,200	254,024,760	22,912,560
April	222,932,065	244,855,160	21,923,095
May	240,431,400	281,320,600	40,889,200
June	273,874,920	278,104,640	4,229,720
July	256,684,120	282,725,080	26,040,960
August	242,271,360	247,052,080	4,780,720
September	232,555,840	239,901,640	7,345,800
October	244,691,040	259,578,880	14,887,840
November	224,918,760	240,049,040	15,130,280
Total	2,930,553,545	3,160,704,360	230,150,815

MAIN PIPE.

Six thousand eight hundred seventy and one-half (6,870½) feet of main pipe have been laid during the year; of the foregoing amount five thousand six hundred sixty-one and one-half (5661½) feet were laid in re-

newing pipe that had been in use for many years, and twelve hundred nine (1,209) feet were laid in new locations for extensions.

The account of main pipe laid will be found on pages 38 and 45.

The streets in which the main pipes were renewed are as follows:

In Chestnut Street from Magazine Street to Pleasant Street there were five hundred sixty-two (562) feet of six-inch laid to take the place of the old four-inch laid in 1872 and 1873.

In Essex Street from Massachusetts Avenue to near Percy Place seven hundred fifty-five (755) feet of six-inch have been laid; the four-inch pipe which formerly supplied this locality has been in use since 1869 and 1878.

In Frank Street from Massachusetts Avenue to Locke Street, four hundred (400) feet of six-inch have been laid; the street has been furnished through a four-inch pipe which was laid in 1873.

In Harvard Street from Quincy Street to Dana Street fifteen hundred ninety-four (1,594) feet of twelve-inch pipe have been laid.

In Harvard Street from Dana Street east three hundred twenty (320) feet of ten-inch have been laid.

A six-inch pipe has been in use in this street since 1867.

In Magazine Court from Magazine Street to Kenwood Street two hundred eighty and one-half (280½) feet of four-inch have been laid to replace the old three-inch and four-inch laid in 1867 and 1884.

In Prince Street from Magazine to Pleasant Street five hundred fifty (550) feet of six-inch have been laid; an old four-inch pipe supplied this vicinity; it was laid in 1868.

In Second Street from Thorndike Street to Charles Street seven hundred fifty (750) feet of six-inch pipe have been laid; an old four-inch has supplied this location; it was originally laid in 1869, 1881 and 1887.

In Spring Street from Second Street east and west four hundred seventeen (417) feet of six-inch pipe have been laid; an old four-inch laid in 1869, 1883 and 1887 has been removed.

In Prison Point Street the change of the grade of the street has necessitated the change in the main pipes and gates.

The usual attention has been given to the requests of the Sewer Department to chain up the main pipe in the streets where the sewers were being constructed.

The annual inspection and blowing off of main pipes were made early in the spring at night under the supervision of the assistant superintendent; the condition of water plainly demonstrated the necessity of blowing off.

An inspection for leakage is now being made under the charge of one of our foremen.

The department has responded to many requests of water takers in various parts of the City who have complained of the condition of the water; in the majority of cases the consumers were located on dead ends.

MAIN PIPE LAID, NUMBER OF GATES AND FIRE HYDRANTS.

	Iron Pipe.		Gates.	Hydrants.
	Feet.	Size.	Size.	Kind.
		inch.	inch.	
Acacia Street, from Ash Street Place	170	4	4	
Belmont Street, extension from 6-inch	112	1¼		
Bridge Street, at Clary's yard				Chapman.
Brookline Street, at Erie Street				Flush.
Charles River Road, corner Greenhalge Street	10½	6		Chapman.
Chestnut Street, from Magazine Street to Pleasant Street	562	6		
" " between Magazine Street and Pleasant Street, (midway)				Boston.
Essex Street, from Massachusetts Ave. to near Percy Pl.	755	6		
" " at Massachusetts Avenue, east			6	
" " at Austin Street, east			6	
" " at Austin Street, west			6	
Frank Street, from Massachusetts Avenue to Locke St.	400	6		
Harvard Street, from Quincy Street to Dana Street	1,594	12		
" " from Dana Street, east	320	10		
" " at Dana Street, west			12	
" " at Remington Street, east			12	
" " " " " (6-inch blow-off)			4	
" " at Ware Hall			4	
Locust Street, extension	39	2		
Magazine Court, from Magazine Street to Kenwood St.	280¼	4	4	
Museum Street, extension	168	6		
Prince Street, from Magazine Street to Pleasant Street.	550	6		
" " at Magazine Street			6	
Royal Avenue, extension	144	6		
River Street, at Blackstone Street				Chapman.
Second Street, from Thorndike Street to Charles Street.	750	6		
" " from Rogers Street to Binney Street	280	6		
" " at Binney Street, north			6	
" " at Spring Street	7½	6		Chapman.
Spring " from First Street, west	260	6		
" " at First Street, west			6	
" " from Second Street, east and west	417	6		
" " at Second Street, east			6	
Ware " at Harvard Street, north	33	6	6	
" " " " " "	7	6		Chapman.
Webster Avenue, at Hampshire Street				Chapman.
Western Avenue, at Putnam Avenue	11	6		Holyoke.

SUPPLIES.

The table of the number and sizes of the supplies laid during the year to furnish water in locations not previously supplied will be found on page 45; the total number laid for this purpose being one hundred and twenty-three (123) in sizes from three-quarters-inch to eight-inch.

The addition of the foregoing number of supplies makes the total number laid to date, November 30, 1903, fourteen thousand six hundred and ninety-two (14,692).

There have been ten large supplies laid for manufacturing purposes and for protection from fire, as follows: American Net and Twine Company, one six-inch and one eight-inch; Boston & Maine Railroad Company, one six-inch; Cambridge Laundry, one six-inch; Irving & Casson,

one six-inch; Ivers & Pond Piano Company, one six-inch; Lever Brothers Company, one eight-inch; Lockhart & Company, W. L., one six-inch; Sawyer, H. M., & Company, one six-inch; and Simplex Electrical Company, one eight-inch.

There have been extensions made on the fire protection pipes located on the premises occupied by the George F. Blake Manufacturing Company, Irving & Casson, and Simplex Electrical Company.

Forty-two (42) old supplies have been furnished with sidewalk shut-off boxes.

One hundred seventy-four (174) supplies have been renewed at the request of owners or where necessary on account of leakage.

When renewing the main pipes it has been necessary to renew the supplies to the property line. Following will be found the list of supplies renewed under these conditions:

Chestnut Street	10	3-4-inch
Essex Street	19	3-4-inch
	3	1-inch
	2	1 1-4-inch
Frank Street	3	3-4-inch
	1	1 1-4-inch
Harvard Street	15	3-4-inch
	6	1-inch
	1	1 1-4-inch
Locke Street	1	3-4-inch
Magazine Court	2	3-4-inch
Prince Street	8	3-4-inch
	4	1-inch
Second Street	8	3-4-inch
	1	1-inch
Spring Street	8	3-4-inch
	3	1-inch

Anticipating the paving with bricks of Cambridge Street from Inman Square to Prospect Street, and in River Street from Kinnaird Street to Putnam Avenue, the supplies, as follows, were renewed:

Cambridge Street	18	3-4-inch
	4	1-inch
	1	1 1-4-inch
	1	1 1-2-inch
River Street	37	3-4-inch
	6	1-inch
	1	1 1-4-inch

In Parker Street the main pipe from Buckingham Street to near Healey Street has been raised; all of the service boxes in the street have been raised and four of the supplies raised and renewed.

The total number of supplies renewed during the year was three hundred thirty-one (331).

Following is the list of establishments having fire protection from the City of Cambridge: —

American Rubber Co.,	Binney Street,	Two 6-in.
American Net & Twine Co.,	Third Street,	Two 6-in.
American Net & Twine Co.,	Third Street,	8-in.
American Vulcanized Fibre Co.,	Tannery Street,	2-in.
Barber Asphalt Paving Co.,	First Street,	6-in.
Bay State Metal Works,	Harvard Street,	6-in.
Blacker & Shepard,	Osborn Street,	2-in.
Blake, Geo. F., Manufacturing Co.,	Binney Street,	8-in.
" " " "	Third Street,	4-in.
Boston Book Binding Co.,	Mt. Auburn Street,	6-in. & 4-in.
Boston Elevated Railway Co.,	Baldwin Street,	2-in. & 4-in.
" " " "	Cambridge Street,	Two 2-in.
" " " "	Pelham Street,	Three 4-in.
" " " "	Massachusetts Avenue,	4-in.
" " " "	Mt. Auburn Street,	4-in. & 2-in.
" " " "	Murray Street,	4-in.
" " " "	River Street,	4-in.
Boston & Maine Railroad,	Bridge Street,	4-in.
" " "	Bridge Street,	6-in.
" " "	East Street,	6-in.
" " "	Prison Point Street,	4-in.
Boston Woven Hose & Rubber Co.,	Portland Street,	8-in. & 10-in.
Cambridge Gas Light Co.,	Third Street,	6-in.
Cambridge Electric Light Co.,	Western Avenue,	6-in.
Cambridge Laundry,	Kinnaird Street,	6-in.
Cambridge Mutual Fire Insurance Co.,	Massachusetts Avenue,	2-in.
Chelmsford Foundry Co.,	Portland Street,	2-in.
Dover Stamping Co.,	Pleasant Street,	6-in.
Fogarty & Daly,	Massachusetts Avenue,	4-in.
Ginn & Co.,	First Street,	Two 6-in.
" "	Athenaeum Street,	8-in.
Goepper Brothers,	Ninth Street,	1 1-2-in.
Harvard University,	Harvard St., Harvard Union,	4-in.
" "	Cambridge St., Memorial Hall,	4-in.
" "	Concord Avenue, Observatory,	6-in.
" "	Divinity Ave., Semitic Mus'm,	4-in.
Holy Ghost Hospital for Incurables,	Hovey Avenue,	3-in.
Houghton, Mifflin & Co.,	Albro & Blackstone Streets,	6-in.
" " "	River Street,	6-in.
Irving & Casson,	Otis Street,	6-in.
" "	Thorndike Street,	Two 6-in.
" "	Thorndike Street,	2-in.
Ivers & Pond Piano Co.,	Albany Street,	4-in. & 6-in.
Jones, C. L., & Co.,	Pearl Street,	4-in.
Keeler & Co.,	Thorndike Street,	1-in.
Kendall, Edward, & Sons,	Main Street,	2-in.

Lamb & Ritchie,	Albany Street,	6-in.
Lever Brothers Co.,	Broadway,	6-in.
" " "	Broadway,	8-in.
Little, Brown & Co.,	Putnam Avenue,	6-in.
Lockhart, Wm. L., & Co.,	First Street,	6-in.
Luke, E. H., Estate of,	Main Street,	2-in.
Mason & Hamlin Co.,	Broadway,	Two 6-in.
Massachusetts Athletic Association,	Lansdowne Street,	4-in.
Metropolitan Storage Warehouse Co.,	Massachusetts Avenue,	6-in.
Middlesex C'ty, House of Correction,	Second & Spring Streets,	6-in.
National Biscuit Co.,	Franklin Street,	4-in.
" " "	Franklin Street,	6-in.
" " "	Green Street,	8-in.
National Linseed Oil Co.,	Fifth Street,	6-in.
North Packing & Provision Co.,	Windsor Street,	6-in.
O'Brien, John (Rev.),	Seventh Street,	4-in.
Page, Geo. G., Box Co.,	Hampshire Street,	6-in. & 4-in.
Petterson, Oscar G.,	483 Main Street,	4-in.
Pierce, Thomas, Trustees of Estate of,	Broadway,	6-in. & 4-in.
Pi Eta Club,	Winthrop Street,	2-in.
Porter, Henry S.,	Kinnaird Street,	4-in.
Reardon, John, & Sons, Corporation,	Waverly Street,	4-in.
Reardon, William,	Portland Street,	2-in.
Revere Sugar Refinery,	Water Street,	6-in.
Reversible Collar Co.,	Putnam Avenue,	6-in.
Russell, Lucy J.,	29 Elm Street,	1 1-2 in.
Rice, P. G., & Co.,	Massachusetts Ave. & Lee St.,	Two 2-in.
Sawyer, Howard M., & Son,	Thorndike Street,	4-in.
" " " "	Second Street,	6-in.
Seavey Manufacturing Co.,	Third Street,	6-in.
Seelye Manufacturing Co.,	First Street,	4-in.
Simplex Electrical Co.,	Auburn Street,	3-in.
" " "	Auburn Street,	6-in.
" " "	Franklin Street,	8-in.
Slavens, Luther R.,	Broadway,	2-in.
Sparrow, H. F., & Co.,	Hampshire Street,	6-in.
Speare's, Alden, Sons & Co.,	Rogers Street,	4-in.
" " " "	Sixth Street,	4-in.
Standard Oil Co.,	Potter Street,	6-in.
Standard Turning Works,	Main Street,	2-in.
Thayer, Henry, & Co.,	Broadway,	6-in.
Tower, Sylvester, & Son,	Broadway,	4-in.
University Associates,	Linden Street,	4-in.
" "	Massachusetts Avenue,	6-in.
University Press,	Nutting Place,	6-in.
Wetmore, C. D.,	Mt. Auburn St., Claverly Hall,	4-in.
Whittemore Brothers,	Albany Street,	4-in.

DRINKING FOUNTAINS.

There has been no addition this year to the number of drinking fountains; there are twenty-eight (28) in use, of which four (4) are ice water drinking fountains.

The ice water drinking fountains were supplied with ice from June 15th to October 15th, inclusive, at an expense of four hundred fifty-two dollars ninety-one cents ($452.91), as follows: —

Central Square fountain	$108.45
East Cambridge fountain . . .	172.20
Harvard Square fountain . . .	87.45
North Cambridge fountain . . .	84.81
	$452.91

The average cost per day of supplying the ice water fountains was one dollar six cents ($1.06).

On account of the prevalence of glanders and at the request of the City Veterinarian, the fountains this year have received careful and continued attention, outside of the usual inspection and repairs.

Five of the old drinking fountains have been thoroughly repaired and changed in regard to the cocks and piping and are now in first-class condition.

STREET WATERING STANDPIPES.

At this date, November 30, 1903, there are sixty-two (62) street watering standpipes in use.

During the year one standpipe has been added to the list; it was on Granite Street.

The standpipe which was formerly located at the corner of Main Street and Portland Street has been removed and set in Albany Street, opposite Ivers & Pond Piano Company's factory.

During the year the standpipes in thirty-three (33) locations have been repaired, and the cost of such repairs charged to the Street Department.

GATES.

Twenty-three (23) gates have been set. (See recapitulation table on page 45.)

Three (3) on extension of main pipes.

Eleven (11) on renewal of main pipes.

Nine (9) on supplies.

The inspections of gates have been made and the locations where necessary carefully marked.

BOXES.

The total number of boxes set during the year was fifty-three (53).

Fourteen (14) iron boxes have been set on extension and renewal work.

Four (4) special meter boxes have been set with meters.

Nine (9) iron boxes have been set on new supplies.

Twenty (20) boxes have been set in places of worthless ones removed.

Six (6) meter boxes.

In seven (7) locations the boxes have been lowered.

In ten (10) locations the boxes have been raised.

In four (4) locations the boxes have been repaired, and

In two (2) locations gate boxes have been reset

HYDRANTS.

There are one thousand and five (1,005) hydrants in use at this date, November 30, 1903.

Boston	157
Chapman	519
Coffin	42
Flush	106
Holyoke	89
Perkins	92
	1,005

Three flush hydrants have been removed as follows: In Harvard Street at Remington Street; in Brookline Street at Erie Street, and in River Street at Blackstone Street.

One Chapman hydrant has been removed at the corner of Webster Avenue and Hampshire Street.

One Perkins hydrant has been removed from the corner of Bridge at Clary's yard.

An account of the hydrants set in new locations and in place of old ones removed will be found on page 38.

The inspection of hydrants has been made, and in the many cases where the hydrants would not work they have been attended to and received necessary care.

METERS.

There are twenty-three hundred twenty-six (2,326) meters in use at this date.

Below find kind, size and number of meters in use on domestic supplies and manufactories :—

	5-8 inch.	3-4 inch.	1 inch.	1 1-2 inches.	2 inches.	3 inches.	4 inches.	6 inches.	Total.
Ball & Fitts			2						2
Crown	10	16	6	5	4		2		43
Empire			2						2
Gem								1	1
Hersey	749	290	111	14	25	4	1	1	1,195
Lambert	102	28	4						134
Nash		13							13
Thomson	1	5		1					7
Trident	377	229	95	22	16	6			745
Union Rotary	10	9	2	8	13	6	8	3	59
Weir		1							1
Worthington	10	9	16	8	12	3	4		62
Total	1,259	600	238	58	70	19	15	5	2,264

And on public buildings, schools, etc. :—

	5-8 inch.	3-4 inch.	1 inch.	1 1-2 inches.	2 inches.	Total.
Ball & Fitts			1			1
Crown	1		2			3
Hersey	1	11	15		1	28
Trident	5	2	10	1		18
Thomson				1		1
Union Rotary				1	1	2
Worthington		3	6			9
Total	7	16	34	3	2	62

During the year there were two hundred thirty-seven (237) meters added to the list as follows :—

	5-8 inch.	3-4 inch.	1 inch.	1 1-2 inches.	2 inches.	3 inches.	4 inches.	Total.
Crown	1	2			1		1	5
Hersey	47	14	9		1			71
Lambert	56	9	3					68
Trident	67	9	4	1				81
Union Rotary	2	2			2	1	1	8
Worthington	3			1				4
Total	176	36	16	2	4	1	2	237

STONY BROOK PIPE LINE.

The work of raising a portion of this pipe in Waltham along the banks of the river, which was in progress at the date of the last report, was completed. It required the raising of about six hundred feet in length from one to three feet.

The portion in Pleasant Street, Watertown, which was too high to admit the change in grade of the street contemplated by the town authorities, was lowered for a distance of about eight hundred feet from one to three feet. This portion was through ledge, and the work was successfully accomplished without shutting off the water from the main.

For an account of the work done on this line during the past year I would refer to the report of Mr. Freeman C. Coffin, which is attached.

STONY BROOK.

The care for the drainage of this water shed has required the construction of three more cesspools this season, making twenty-one cesspools and nineteen vaults on this shed, all of which are cared for by this department outfit.

HOBBS BROOK.

As usual all standing grass not needed by the department has been sold to the highest bidder. The bushes and weeds along the fences have been cut and the grass on the dams kept mowed.

RECAPITULATION.

SUPPLIES.	12 Inch	8 Inch	6 Inch	2 Inch	1½ Inch	1¼ Inch	1 Inch	¾ Inch	Total
Length, in feet, of pipe	4½	90	190½	171	81	154	1,279½	3,363	5,333½
Number of supplies	.....	3	7	5	2	4	22	80	123
Number of stop and waste valves	.....	.....	.....	2	2	5	20	80	109
Number of screw cocks,	.....	.....	.....	4	2	4	21	89	120
Number of sidewalk cocks	.....	.....	.....	.....	.....	4	21	83	108
Number of service boxes	.....	.....	.....	.....	.....	.....	.....	.....	104
Number of gates	.....	.....	.....	.....	.....	.....	.....	.....	9
Number of gate boxes	.....	.....	.....	.....	.....	.....	.....	.....	14

RECAPITULATION.

MAIN PIPE.	12 Inch	10 Inch	6 Inch	4 Inch	2 Inch	1¼ Inch	Total
Length, in feet, of pipe extension	.....	.....	888	170	39	112	1,209
Length, in feet, of pipe renewals	1,594	320	3,467	280½	.....	.....	5,661½
Total length, in feet, of pipe	1,594	320	4,355	450½	39	112	6,870½
Number of gates	.....	.....	.....	.....	.....	.....	14
Number of hydrants	.....	.....	.....	.....	.....	.....	9

TABLE SHOWING THE DAILY AVERAGE GALLONS, BY THE MONTH, FLOWING OVER THE WASTE WAY AT STONY BROOK.

	Gallons.	Number of Days.		Gallons.	Number of Days.
December, 1902....	387,300,000	17	June, 1903....	632,700,000	15
January, 1903....	639,000,000	31	July, 1903....	237,700,000	27
February, 1903....	882,100,000	28	August, 1903....	26,800,000	8
March, 1903....	1,854,900,000	31	September, 1903....	.....	.....
April, 1903....	1,562,400,000	30	October, 1903....	72,900,000	13
May, 1903 ...	141,700,000	22	November, 1903....	.....	.....

Total amount wasted . . . . . 6,437,500,000 gallons.

Total number of days in which water wasted 222

STONY BROOK.				HOBBS BROOK.							
				Lincoln Street Basin. Dam Number 1.			Winter Street Basin. Dam Number 2.			Remarks.	
Date.	Lowest elevation during month.	Highest elevation during month.	Rainfall.	Date.	Lowest elevation during month.	Highest elevation during month.	Date.	Lowest elevation during month.	Highest elevation during month.	Rainfall.	Flash-boards removed.	Flash-boards set.	
Dec. 16, 1902	80.63			Dec. 15, 1902	180.53		Dec. 1, 1902	178.48					
Dec. 23, 1902		81.79	5.68	Dec. 22, 1902		181.20	Dec. 31, 1902		180.55	5.86			
Jan. 20, 1903	81.83			Jan. 1, 1903	180.78		Jan. 1, 1903	180.55					
Jan. 22, 1903		81.65	3.77	Jan. 22, 1903		181.50	Jan. 23, 1903		181.55	3.24			
Feb. 25, 1903	81.33			Feb. 26, 1903	181.35		Feb. 26, 1903	181.30					
Feb. 5, 1903		81.92	4.01	Feb. 28, 1903		181.60	Feb. 5, 1903		181.55	3.34			
Mar. 21, 1903	81.50			Mar. 20, 1903	181.48		Mar. 20, 1903	181.43					
Mar. 24, 1903		82.25	6.13	Mar. 24, 1903		181.80	Mar. 24, 1903		181.70	6.09			
Apr. 30, 1903	81.33			Apr. 30, 1903	181.38		Apr. 30, 1903	181.33					
Apr. 10, 1903		82.07	3.37	Apr. 9, 1903		181.75	Apr. 10, 1903		181.65	3.31			
May 31, 1903	80.06			May 28, 1903	181.10		May 28, 1903	181.08					
May 1, 1903		81.31	.80	May 1, 1903		181.38	May 1, 1903		181.33	.82			
June 4, 1903	79.85			June 11, 1903	180.90		June 8, 1903	180.75			June 1, 1903 Removed 1st	June 7, 1903 Set 2d	Gates closed during entire year.
June 23, 1903		82.12	7.45	June 22, 1903		181.80	June 22, 1903		181.75	8.47	June 4, 1903 Removed 2d	June 12, 1903 Set 1st	
July 18, 1903	80.83			July 18, 1903	181.20		July 18, 1903	181.15					
July 2, 1903		81.50	3.48	July 1, 1903		181.48	July 1, 1903		181.43	3.71			
Aug. 20, 1903	80.10			Aug. 28, 1903	181.05		Aug. 29, 1903	180.93			Aug. 20, 1903 Removed 1st	Aug. 27, 1903 Set 1st	
Aug. 7, 1903		81.23	3.66	Aug. 7, 1903		181.35	Aug. 7, 1903		181.30	4.08			
Sept. 17, 1903	80.04			Sept. 30, 1903	180.50		Sept. 30, 1903	180.40			Sept 9, 1903 Removed 1st	Sept 12, 1903 Set 1st	
Sept. 9, 1903		81.00	1.99	Sept. 6, 1903		181.10	Sept. 7, 1903		181.00	2.45	Sept. 15, 1903 Removed 1st Sept. 17, 1903 Removed 2d Sept. 22, 1903 Removed 3d Sept. 23, 1903 Removed 4th		
Oct. 1, 1903	80.40			Oct. 1, 1903	180.50		Oct. 8, 1903	180.20				Oct. 10, 1903 Set 4th	
Oct. 19, 1903		81.33	4.19	Oct. 18, 1903		180.90	Oct. 31, 1903		180.75	4.57		Oct. 12, 1903 Set 3d, 2d, 1st	
Nov. 12, 1903	80.00			Nov. 1, 1903	180.77		Nov. 16, 1903	180.63					
Nov. 21, 1903		81.00	1.44	Nov. 30, 1903		180.80	Nov. 28, 1903		180.80	1.48			
			45.97							47.42			

COMPARATIVE TRENCHING FOR THE PAST TEN YEARS.

	Extensions.	Renewals.	Supplies.	Total Feet.	Miles.
1894	13,673	17,481½	17,211	48,365½	9.16
1895	11,083	15,638½	22,266	48,987½	9.27
1896	17,621	26,043	17,361	61,025	11.55
1897	11,268	36,367½	16,121½	64,357	12.19
1898	11,045½	25,397	12,186	48,628½	9.21
1899	11,051½	9,427½	13,486½	33,965½	6.43
1900	9,174	412½	6,848	16,434½	3.11
1901	4,126	5,750	8,246	18,122	3.43
1902	4,392	5,941½	6,835½	17,169	3.25
1903	1,209	5,661½	5,333½	12,204	2.31

Accompanying this will be found the report of the Chief Engineer of the Pumping Station.

Respectfully submitted,

EDWIN C. BROOKS,
Superintendent.

REPORT OF THE PUMPING ENGINEER

PUMPING STATION, CAMBRIDGE WATER WORKS,
December 1, 1903.

MR. EDWIN C. BROOKS, *Supt.*

MY DEAR SIR: — I would report the machinery at the pumping station in good condition.

During the year the Worthington Engine No. 1 has been run sixty hours forty-five minutes, and Worthington Engine No. 2 has been run sixty hours. Aside from this, the Leavitt Engine No. 7 has pumped all of the water used by the City.

The tubes in No. 1 Receiver on Leavitt Engine No. 7 have been repacked.

I would recommend the changing the tubes in No. 1 Receiver on Engine No. 7 to a copper coil the same as in No. 2 Receiver in order to avoid repacking every year; this can be done at a small expense, as the material taken out and sold will nearly pay for the copper coil.

There has been a jacket and boiler feed pump attached to Engine No. 7; this change saves the expense of running two auxiliary pumps. It was designed and manufactured here at the pumping station at the cost of castings only.

By permission of the Water Board the pump and receiver formerly used for jacket pump were exchanged for a Fort Wayne twenty-ampere forty-light dynamo to be run through the night. This is connected to our small shop engine and saves from four hundred to five hundred pounds of coal per night over our large light engine, which is very wasteful running with a light load.

A mercury column and float gauge has been placed in the engine room; very accurate readings are thus obtained as to head pumped against heights of water in pond and reservoir.

The boilers are in good condition, but will require new brick arches in the fire boxes this coming year.

The fire room walls and boilers have been painted by the employees of the station.

The quality of coal used at the station during the "coal strike" last winter (a part of it running as high as sixteen per centum ash) has cut our yearly duty materially, *i. e.*, 1902, 115,974,363; 1903, 114,844,888.

Respectfully submitted,

E. I. HARRIS,
Chief Engineer.

OPERATING EXPENSES AT PUMPING STATION.

Coal	$12,618.38
Express	15.85
Oil, grease and packing	435.60
Repairs on engines and boilers	310.59
Repairs on buildings	225.92
Telephone	69.51
Tools and hardware	90.71
Miscellaneous	44.68
Salaries	6,893.47
	$20,704.71

ENGINE RECORD, POND LEVELS AND RAINFALL.

	Low Service Engines.						Engine No. 7.			Total Running Time.		Total Water Pumped.	Daily Average Water Pumped.	Total Coal Consumed.	Daily Average Coal Consumed.	Average Height of Pond.	Rainfall.
	Engine No. 1.			Engine No. 2.													
	Running Time.		Water Pumped.	Running Time.		Water Pumped.	Running Time.		Water Pumped.								
1902.	Hrs.	Min.	Gallons.	Hrs.	Min	Gallons.	Hrs.	Min.	Gallons.	Hrs.	Min.	Gallons.	Gallons.	Lbs.	Lbs.	Feet.	Ins.
December.....							360	..	281,443,360	360	..	281,443,366	9,078,818	458,745	14,798	13.44	4.37
1903.																	
January.....							394	15	301,018,080	394	15	301,018,080	9,710,260	513,640	16,569	13.31	3.19
February.....							324	..	250,631,040	324	..	250,631,040	8,951,108	385,700	13,775	13.12	3.50
March.....	60	45	17,588,100	60	..	17,827,500	270	15	218,609,160	391	..	254,024,760	8,194,347	384,800	12,412	13.50	4.89
April.....							315	30	244,855,160	315	30	244,855,160	8,161,838	332,475	11.082	14.37	3.98
May.....							358	45	281,320,600	358	45	281,320,600	9,074,858	368,650	11,891	14.14	.35
June.....							344	45	278,104,640	344	45	278,104,640	9,270,154	354,800	11,826	13.25	8 46
July.....							355	..	282,725,080	355	..	282,725,080	9,120,163	361,500	11,661	13.16	3.72
August.....							309	30	247,052,080	309	30	247,052,080	7,969,421	337,400	10,883	12.79	3.81
September.....							301	45	239,901,640	301	45	239,901,640	7,996,721	305,130	10,171	12.49	1.72
October.....							318	15	259,578,880	318	15	259,578,880	8,373,512	337,115	10,874	12.06	4.54
November.....							288	30	240,049,040	288	30	240,049,040	8,001,634	322,514	10,750	11.37	1.70
Total.....	60	45	17,588,100	60		17,827,500	3,940	30	3,122,588,760	4,061	15	3,160,704,360		4,462,469			44.23
Daily average ...													8,659,463		12,226	13.08	

SPECIAL REPORT OF CONSULTING ENGINEER TO THE CAMBRIDGE WATER BOARD

Boston, December 1, 1903.

To the Water Board of Cambridge, Massachusetts: —

Gentlemen: — I submit the following report upon the condition of the cast-iron pipe conduit from Stony Brook dam to Fresh Pond, also upon the necessity for a new or additional pipe line, the best location for it, and its proper size, with estimates of cost.

PRESENT PIPE LINE OR CONDUIT.

This line is composed of 5,100 feet of thirty-six-inch cast-iron pipe from the dam at Stony Brook basin to a point near the pumping station of the Waltham Water Works, and from this point 34,340 feet of thirty-inch cast-iron pipe to the point of discharge in Fresh Pond.

There is a total fall from the crest of the dam at Stony Brook basin to the high water line in Fresh Pond of 64.15 feet. The profile of the pipe line is such, however (owing to a high point or summit on the line near Fresh Pond), that the effective or working head on the pipe is only thirty-four or thirty-five feet.

This head would in this pipe when new and clean indicate a discharge of about nine and one-half million gallons in twenty-four hours. When the gate in the gate house at Fresh Pond is opened (after being closed), nearly, if not quite, the full head of sixty-four feet would be effective for a short time on account of the vacuum formed at the summit near Fresh Pond, and the discharge would be increased to perhaps thirteen million gallons (while the pipe was new). The effective head would be gradually diminished by the collection of air at the summits and consequent loss of vacuum, until it would be equal to the actual head at the summit (thirty-four or thirty-five feet), and the discharge would be correspondingly reduced.

The length of time required for the flow of water in the pipe to

attain its normal condition, after opening the gate, depends upon the tightness of the line against air leaks.

The pipe line was laid in 1885 and put into use in 1887, being now sixteen years old as measured by its use. The discharge of the line was measured in 1894 by Mr. L. M. Hastings, City Engineer, and found to be 8,066,500 gallons in twenty-four hours. As I understand the condition under which this measurement was made, there was no effect of vacuum at the time. This measurement indicated a capacity at that time of eighty-five per cent. of the above estimated discharge for new pipe, the pipe being then seven years old.

Later a reduction in the discharge of the pipe was suspected, the Water Board calling attention to the matter in connection with the rapidly increasing consumption of water in several annual reports. In order to obtain as great a flow of water as possible, the Superintendent of the Water Works, Mr. E. C. Brooks, adopted the novel plan of shutting the gate at Fresh Pond once a day and driving the air out of the summits in the line, thus gaining for a time the increased discharge due to a vacuum, as shown by a gage at the Holworthy Street summit, of twenty-six inches when the gate was first opened decreasing to about four inches at the end of twenty-four hours.

Mr. Brooks also installed an air ejector driven by water from the high service mains at Holworthy Street with the intention of removing the accumulation of air and maintaining the vacuum for a longer time.

About the last of June, 1903, the writer was requested to attend a meeting of the Water Board, to meet the members of the Board and the Mayor of Cambridge for a conference in relation to the discharge of the above pipe line, and to see what measures, if any, were necessary to be taken to insure an abundant supply of water for the increasing requirements of the City. The matter was generally discussed at this meeting and at a later one with the Chairman of the Water Board and the Mayor, when the writer was instructed to make such investigations and surveys as he considered necessary or advisable in order to form a correct opinion of the present condition of the pipe line, its discharging capacity, the available means for increasing its capacity, the need of additional or supplementary pipe lines, and their best location.

The first thing to be determined was the present capacity of the line. Upon the assurance from the Builders Iron Foundry that a Venturi meter could be furnished in from three to four weeks, and after a full consideration of other methods of measuring the flow of water through the pipe, a meter was ordered.

In order to ascertain the effect of the ejector which was in use at the Holworthy Street summit, to see if an apparatus of greater capacity would

be more effective in maintaining the vacuum, and to determine the required capacity of such an apparatus, a steam driven air pump was rented and installed, with a boiler, in a temporary wooden building at Holworthy Street.

After considerable unexpected delay in getting the meter, it was installed and observations made of the flow through the pipe line.

The result of these observations shows that when the gate is first opened the discharge of the pipe is at the rate of eight million gallons in twenty-four hours. This is the maximum rate, and it decreases until in from eight to ten hours it reaches the minimum rate of about five and three-fourths million gallons, which rate it maintains, and in one series of observations, after falling to the above rate, it rose to six millions, and continued at that rate until the gate was again closed.

As far as can be ascertained, the ejector has but little if any effect upon the discharge or upon the vacuum. The latter is shown by the gage falling in substantially the same time and manner with and without the ejector. The air pump did but little better, although of large capacity. It was not found practicable to run it at all until the vacuum was reduced to twenty-two inches.

As the result of this experiment with the air pump, I am of the opinion that nothing can be gained by installing an apparatus of greater capacity than the ejector.

Computations based upon the several series of observations so far made show that approximately the following results can be obtained from the pipe line in its present condition :—

Regular rate of flow with no manipulation of gate, five and three-fourths million gallons in twenty-four hours.

Shutting gate and expelling the air at the summits once in twenty-four hours, six million gallons in twenty-four hours.

Shutting gate and expelling the air at the summits twice in twenty-four hours, six and one-eighth million gallons in twenty-four hours.

Shutting gate and expelling the air at the summits four times in twenty-four hours, six and three-eighths million gallons in twenty-four hours.

In the above estimate the time lost in shutting and opening the gate is considered.

Diagram No. 1 shows graphically the results upon the flow of closing the gate and expelling the air from the summits.

The curved lines on the diagram give the rate of flow per twenty-four hours at any time after the opening of the gate.

It being thought that the accumulation of air in the summits of the pipe line, other than at Holworthy Street, might affect the working of

the air ejector at the latter point and prevent its full benefit from being secured, it was decided to place ejectors upon the other summits, one at a time, and observe the flow.

Accordingly a second ejector was installed at the Dexter Avenue summit. The meter was read and a flow of 6,125,000 gallons in twenty-four hours was obtained with closing the gate once. This showed a gain of about one-fourth of a million gallons in twenty-four hours over the flow before the second ejector was placed. A third ejector was then installed and the flow observed. Two series of observations were made. These did not show a decided increase over the flow with two ejectors, and it was decided not to install any more.

A curve showing the flow of the two ejectors is given on Diagram No. 1, and shows graphically the comparison between the flow with and without the second ejector.

CAN THE CAPACITY OF THE PRESENT PIPE BE INCREASED?

The reduction of capacity in the pipe line from an estimated discharge for new pipe of nine and one-half million gallons to 8,066,500 or eighty-five per cent. in 1894, and to five and three-fourths millions or sixty and one-half per cent. in 1903, indicates strongly that a progressive change is taking place in the interior condition of the pipe.

A definite or special obstruction might be suspected at some particular point in the line. I am of the opinion, however, that there is no such obstruction, but that the reduction in capacity is occasioned by some cause that operates along the entire length of the line in a nearly uniform degree. Aside from general knowledge of the subject, gained from experience with other pipe lines, there is practical proof of this in the action of this line. Carefully tested pressure gages were placed upon gates at intervals along the line, nine in all, and observations made upon these gages simultaneously with readings of the meter. The results of these observations were platted and show that the loss of head due to the friction caused by the water flowing in the pipe was nearly uniform in all of the sections, except that in the fifty-one hundred feet of thirty-six-inch pipe it was greater than in the same length of the thirty-inch pipe. Another peculiarity in the thirty-six-inch pipe was the fact that, with the maximum flow of eight millions, the loss of head was 0.95 feet per one thousand, or less than with the smaller flow of six and one-half millions.

It is well known that tuberculation takes place on many, if not all, cast-iron pipe lines, even when coated, to a degree depending upon the character of the water. It is not known, I believe, what characteristics of the water have the greatest effect upon the pipe.

Actual examination of two lengths of thirty-inch pipe, cut out where the meter was inserted, shows very considerable tuberculation. The tubercles, some of them as large as one and one-fourth inches in diameter on the base and three-eighth of an inch high, in the form of a cone, covered about one-twentieth of the surface of the inside of the pipe. It is probable that the interior of the pipe for its entire length is affected to approximately the same extent.

In coated pipe the tubercles seem to grow or attach themselves to the iron through small holes or imperfections in the coating, and to spread out over the latter. They are easily removed, and in many cases leave the coating nearly as good and smooth as ever.

Tuberculation produces an uneven surface over which the water must flow. This condition increases the friction loss, and reduces the discharging capacity to a far greater extent than the mere loss of area in the cross section of the pipe would indicate.

The friction loss, as determined by the observations made upon this line, is now at least twice that in new pipe, and, as already stated, the capacity of the pipe is reduced nearly forty per cent.

Although the above rate of increase in friction loss after a life of sixteen years is rather more than it is customary to expect, it is quite similar in degree to the loss I have recently found in some piping of the Gardiner, Maine, Water Works, where in a twelve-inch pipe eighteen years old I found the friction loss twice as great as that of new pipe, and in a six-inch pipe of the same age three times as great.

The thirty-six-inch pipe was entered and inspected for a portion of its length, and the growth was greater than in those parts of the thirty-inch pipe which was inspected. This probably accounts for the fact that the loss of head from the same flow was greater than in the thirty-inch when it naturally would be smaller.

There was, however, no indication of a special obstruction in this pipe, and I am of the opinion that there is none and that the excessive loss of head is caused by the growth on the interior sides of the pipe. This does not account for the fact that the loss of head in this section was greater with a flow of six and one-half millions than with that of eight millions. I am unable to explain this.

The growth on the thirty-six-inch pipe, as shown by inspection, consists of "tubercles," or conical-shaped projections on the pipe surface ranging from one-fourth of an inch in diameter by one-eighth of an inch high to two inches in diameter by five-eighths of an inch high, and covering perhaps one-tenth of the surface in a generally uniform manner There was also, especially near the upper end, or the intake, growth of spongilla or fresh water sponge. This growth was in patches from the

size of a man's hand to two or three feet square, generally not more than one-eighth of an inch thick, with occasional patches, however, about one-half of an inch in thickness. The entire surface was also covered with a vegetable slime, perhaps one-fourth of an inch in thickness at the upper end, and gradually decreasing to about one-eighth of an inch at the lower end of the thirty-six-inch pipe.

In the thirty-inch pipe the tubercular growth was not quite as heavy, perhaps decreasing towards Fresh Pond. No spongilla was found at the two points of inspection in this size, and there seemed to be less slime as the distance increased from the intake at Stony Brook basin. It was not difficult to remove all of the growths by hand scraping, and the surface coating was left, after such scraping, apparently as good as new. It is probable that tuberculation would begin sooner and progress at a more rapid rate after scraping than in new pipe.

The following table gives the results in loss of head for various quantities of water flowing :—

Quantity of Water.		36-inch Pipe.			30-inch Pipe.		
		Loss of Head in Feet per 1,000.			Loss of Head in Feet per 1,000.		
Million Gallons per 24 Hours.	Cubic Feet per Second.	Actual.	New Pipe Estimated.	Velocity.	Actual.	New Pipe Estimated.	Velocity.
6½	10.07	1.055	0.32	1.43	0.82	0.47	2.05
7	10.84	1.12	0.37	1.54	1.17	0.54	2.22
7½	11.62	0.965	0.42	1.65	....	0.61	2.36
8	12.39	0.944	0.46	1.76	1.44	0.70	2.53

The above estimated friction loss in new pipe does not include anything for open gates or bends. The loss in these will not, I believe, amount to a great deal in this line.

CLEANING THE PIPE.

Water mains have been cleaned, or the tubercles removed, in several instances by means of scrapers inserted into the line and driven through it by the water pressure acting upon pistons, and their capacity materially increased in this way. Definite statements of the *amount* of such increase are lacking.

In a forty-eight-inch pipe of the Boston Water Works (now of the Metropolitan system), cleaned by hand scraping and brushing in 1894 after being used sixteen years, an increase of approximately thirty-three

per cent. was obtained, practically restoring the original capacity. This pipe was about eighteen hundred feet long. The cleaning and its effects are fully described in a paper by Mr. Desmond FitzGerald, Civil Engineer, which is published in the *Journal of the American Society of Civil Engineers.*

It is impracticable to clean this pipe by hand, both on account of its size, which is not large enough to work in, and on account of its length and the time during which it must be out of use to clean it in that manner.

No pipe over twenty-four inches in diameter has been cleaned by the pressure driven piston scrapers as far as I know. I believe, however, that it is quite as feasible to clean a thirty-inch pipe in this way as a smaller one under the same conditions.

It is in my opinion of the utmost importance that this pipe should be cleaned, if possible, as it is not now delivering a sufficient quantity of water, in addition to the natural supply from Fresh Pond itself, to meet the demand by from one to two million gallons per day, and with no change in conditions, it is a question of perhaps a year before the stored water in Fresh Pond will be exhausted.

Since making the investigation of the pipe line described above, I have been authorized by your Board to make an experiment or test upon a section of the line to ascertain if the pipe can be cleaned by scraping, how it can be done in the best way, and what results in the increase of flow may be expected if the entire line is cleaned. Six thousand dollars have been appropriated, with the understanding that approximately one thousand might be expended upon the preparation for and the making of the test. When this is done, it may be determined whether or not the appropriation will be sufficient to clean the entire length of the thirty-inch pipe. It will be unnecessary to clean the thirty-six-inch at once, although it will be desirable to do so soon, if the cleaning of the thirty-inch proves to be successful and effective.

Considerable time was necessarily consumed in the design of the apparatus, and its construction is not yet completed. It is hoped that the experiment will be made on the trial section soon, but the season is so far advanced that it will be wiser to wait until spring to clean the rest of the pipe.

The complete cleaning of the line will require some time, and will interrupt the delivery of the water from Stony Brook basin for two weeks or perhaps a month. I understand that your Board has made arrangements with the Metropolitan Water Board whereby you can obtain water from that system if there is danger of a shortage in the supply from Fresh Pond. In that case, an interruption of even a month can well be afforded

if the increase in flow is as much as I believe that we may expect. Such an increase will provide the time in which to lay new or additional pipe lines which are evidently needed.

NEED OF NEW OR ADDITIONAL PIPE LINES.

The foregoing report upon the condition of the pipe line from Stony Brook basin to Fresh Pond shows its inadequacy to supply the present consumption of more than eight and one-half millions gallons per day, and indicates the pressing need of a new or additional line, which need your Board has been pointing out in its reports for several years past.

To properly consider this question it is first necessary to ascertain the present and prospective requirements of the City.

CONSUMPTION OF WATER.

The consumption of water in the Cambridge Water Works has been as shown by the following table, which gives the population of Cambridge and the consumption of water since 1872 :—

Table No. 1.

GIVING POPULATION OF CAMBRIDGE AND THE AVERAGE DAILY CONSUMPTION OF WATER IN GALLONS.

Year.	Population.	Total.	Average Daily.	Per Capita Daily.
1872	45,166	595,118,196	1,626,006	36
1873	46,807	740,151,380	2,027,812	43.3
1874	48,448	839,301,075	2,299,455	47 48
1875	50,088	890,075,860	2,718,485	54.27
1876	51,061	892,514,424	2,438,564	47.75
1877	52,033	960,582,180	2,631,732	50.57
1878	53,002	823,874,350	2,257,190	42.58
1879	53,977	887,820,890	2,432,386	45.06
1880	55,110	886,890,468	2,423,198	44.15
1881	56,470	902,319,420	2,472,108	43.77
1882	57,830	903,234,840	2,474,616	42.79
1883	59,190	980,670,320	2,686,768	45.39
1884	60,550	971,358,906	2,626,691	43.38
1885	61,910	1,125,252,660	3,082,884	49.79
1886	63,982	1,235,558,945	3,385,093	52.75
1887	66,056	1,409,411,000	3,861,400	58.45
1888	68,330	1,587,688,602	4,337,947	60.73
1889	70,204	1,599,439,125	4,382,025	59.56
1890	72,278	1,638,550,335	4,489,179	62.11
1891	75,271	1,778,056,620	4,871,388	64.71
1892	78,264	1,961,362,890	5,358,915	68 47
1893	81,257	2,307,863,975	6,322,915	75.35
1894	84,250	2,127,878,460	5,829,804	69.19
1895	83,817	2,190,781,930	6,002,142	71.65
1896	86,881	2,413,506,480	6,594,280	75.90
1897	88,786	2,441,340,095	6,688,603	76.46
1898	89,277	2,792,321,175	7,650,195	85.69
1899	88,576	2,882,570,345	7,897,453	89.16
1900	92,308	2,667,540,918	7,263,773	78.69
1901	94,355	2,785,156,590	7,630,566	80.87
1902	94,157	2,930,553,610	8,028,914	85.27

The foregoing table shows an increase not only in the total consumption but in the per capita consumption.

An increase in the total consumption is a natural result of an increasing population. A certain increase in the per capita is also a legitimate result of the generally more extended uses of water in larger places, and usually accompanies the growth of population. The important point to determine is whether the increase is wholly due to legitimate use of water or partially to waste.

The total consumption in Cambridge increased from 1,626,006 gallons per day in 1872 to 8,028,914 in 1902, or practically five and one-half per cent. per year. The rate of increase is not uniform, in fact, the consumption is less in some years than in the preceding one, but the above is the rate of increase for the period. Since 1900 the rate has been about seven per cent. per year, including 1903. In the last ten years, or since 1893, it has been only three and one-half per cent. with violent fluctuation. This is shown graphically on Diagram No. 2.

While the increase in consumption was from 1,626,006 to 8,028,914 in thirty years, or about five and one-half per cent. per year, the increase in population is from 45,166 in 1872 to 94,152 in 1903, or two and one-half per cent. per year, or approximately one-half the rate of the increase in consumption. The increase in population is shown graphically on Diagram No. 3.

The per capita consumption has increased from thirty-six gallons per day in 1872 to 85.27 in 1902, or equal to a uniform increase of about two and three-fourths per cent. per year. The increase in consumption per capita is shown graphically on Diagram No. 4.

The average daily consumption in 1902 was 8,028,914 gallons, and in ten months of 1903 it was 8,630,000 gallons or an increase of 7.7 per cent. over that of the corresponding ten months in 1902. If the same percentage of increase is maintained for the year, the total consumption in 1903 will be 3,150,000,000 gallons or 8.63 millions per day as compared with 2,930,553,610 in 1902, and 2,785,156,590 in 1901.

The daily flow from Stony Brook basin under present conditions cannot exceed six and one-half millions. It is not safe to estimate the yield of Fresh Pond water shed at more than two million gallons daily in a year of average rainfall, or more than one million gallons in a *very* dry year. This is upon the supposition that there is no important diversion of water from the water shed.

This makes a total available supply of from seven and one-half to eight and one-half million gallons per day, depending upon the amount of rainfall. As the rainfall cannot be predicted, the only sure estimate is that of seven and one-half million gallons per day.

In addition to this amount, there is available above the intake to the pump at Fresh Pond about one hundred sixty millions in storage. With

a use of 8.63 millions per day, this storage would furnish, in connection with the yield of the Fresh Pond water shed and the discharge of the pipe from Stony Brook, a full supply for one hundred forty-two days, or about four and three-fourths months, if the yield of the Fresh Pond water shed were uniform. This yield will be greater for the next six months than for the six months following, and may average two million gallons per day. This would supply the City for the next six months without drawing upon the storage. Then assuming that the yield of Fresh Pond through the six dry months will be about three hundred thousand gallons per day, the storage of one hundred sixty millions will last about ninety days, or three nonths. This would indicate a supply for the City at the present rate of consumption for about nine months, if the next year is a very dry one. If the year is one of average rainfall, and the use is 8.6 millions daily, the storage in the pond will probably be sufficient to supply the demand throughout the next season until the winter rains come, which would in turn keep up the supply until the next summer, or the summer of 1905.

That is, to put the matter briefly, if no change is made in the pipe capacity, the supply will run short about July or August, 1904, if the next year is a very dry one, and will run short in the summer of 1905, if the rainfall of 1904 and 1905 is about the average. This is upon the supposition that there will be no increase in the consumption over the rate for 1903. *If the present rate of increase is maintained, the shortage will come much sooner.*

It is evident that something must be done either to increase the available supply of water to Fresh Pond or to decrease the consumption of water.

The only practical method of decreasing the per capita consumption of water is by the general installation of meters. While I am of the opinion that the meter system should be adopted in Cambridge, and believe that it would, without in the least restricting a *liberal use* of water, control *needless waste* and reduce the future expenses of the water department, while not increasing the cost of the service to reasonably careful users, its installation cannot now afford relief and render unnecessary the construction of a new pipe line. Such must be built, and built as soon as possible, if a shortage of the water supply is to be averted.

Even if the proposed cleaning of the Stony Brook conduit is successful, it will do little more than to allow sufficient time to lay the new line without undue haste.

I shall refer again to the results that can be secured by the adoption of a meter system, and their probable effect upon the future of the water supply.

NEW OR ADDITIONAL PIPE LINES FOR BRINGING WATER TO FRESH POND.

At the present time Cambridge has an abundant supply of water at the source or that could be drawn from Stony Brook and Hobbs Brook basins. The present difficulty lies in the lack of capacity in the conduit from Stony Brook basin to Fresh Pond.

The available supply at Fresh Pond can be increased by laying an additional line from Stony Brook basin to Fresh Pond to supplement the present one; by laying a new line from Hobbs Brook basin to connect with the present conduit at a point in Waltham near the Riverview Station of the Fitchburg Railroad; or by laying a new line from Hobbs Brook basin directly to Fresh Pond, following the main line of the Fitchburg Railroad from Waltham through Belmont and discharging into the northwesterly side of Fresh Pond.

The second line will increase the supply by making available the head of Hobbs Brook basin (which is one hundred feet higher than Stony Brook basin). This increased head, acting upon the present conduit below the point of connection with the new line, will increase its discharge.

Several different plans have been considered and compared. Surveys, studies and estimates have been made upon four of these.

First. A new line parallel with the present line from Fresh Pond to the end of the thirty-six-inch pipe which forms about five thousand feet of the upper end of it.

Second. A supplementary line from Fresh Pond to Arsenal Street and Irving Street in Watertown, over a different route and joining the present line there. This line avoids the summits which reduce the capacity of the present line.

Third. A new line from Hobbs Brook basin, passing north of Bear Hill and joining the present line at Riverview.

Fourth. A new line from Hobbs Brook basin directly to Fresh Pond by way of Waltham and Belmont.

CAPACITY OF NEW LINES.

In determining the capacity of new pipe lines, the future demands of the City must be considered, and also the maximum capacity of the present source, and to a certain extent consideration must be given to possible future supplies, if they are likely to affect these lines or be affected by them. In this connection it is necessary to determine the full amount that can be expected from the present source of supply,

when it is developed to its fullest practicable extent, and the possible length of time in the future during which it will be sufficient to meet the demands of the City.

MAXIMUM AVAILABLE SUPPLY FROM PRESENT SOURCES.

I estimate that the supply available at Hobbs Brook basin, Stony Brook basin and Fresh Pond under present conditions of development is substantially twelve million gallons.

METHODS OF INCREASING THE SUPPLY FROM THE PRESENT SOURCE.

The entire water shed has an area of approximately 25.35 square miles, as measured upon the topographical maps, as follows:—

Fresh Pond water shed	2.14	square	miles
Stony Brook water shed above Stony Brook basin and excluding Hobbs Brook and Sandy Pond*	15.70	"	"
Hobbs Brook water shed	7.51	"	"
Total including water surfaces	25.35	"	"

The above area, if provided with suitable and sufficient storage capacity, is capable of furnishing a supply of nineteen million gallons per day, or at the rate of 750,000 gallons per day per square mile, through the driest periods.

The total run-off from the entire water shed is on the average approximately 27.4 million gallons per day, and the reason that only twelve millions per day is the present dry weather capacity is because of lack of storage.

On Hobbs Brook only is there storage equal to the capacity of its water shed.

I have made careful examination of the topographical maps and actual examination of the ground to ascertain if there are possibilities of increasing the storage capacity, and am of the opinion that there are but two points at which it is practicable to increase the supply from the present sources.

The first, and here it is more a question of utilizing the large storage capacity on Hobbs Brook for the flow from another water shed than of securing additional capacity, is to build a dam at the foot of Beaver Pond and divert its water to Hobbs Brook basin, as suggested in a report made by Mr. A. Fteley in 1894. I have had levels run to Beaver Pond, and find

* Sandy Pond is excluded as it is used as a supply for the towns of Lincoln and Concord.

that the present surface of the water is about six feet below the crest of Hobbs Brook dam. It would require a dam ten feet or more in height to divert the water when Hobbs basin is full. I have not made surveys to determine how much land would be flowed or how much the dam, and the pipe line or canal to Hobbs Brook basin would cost. I estimate that the increase in the supply which would be secured by the execution of this plan is about 1.6 million gallons per day in the driest years. This would provide a total supply, from the sources now in use, of 13.6 million gallons per day through a period as dry as any on record since 1875.

With especial care in the use and waste of water in very dry seasons, I believe that it is safe to say that the present sources (with the diversion of the water of Beaver Pond into Hobbs Brook basin) are capable of furnishing a supply of fourteen million gallons daily.

The second and only other point on the water shed where in my opinion there is any promise of increasing the supply by additional storage is on Cherry Brook in Weston.

There is a possibility of building a dam on this Brook at a point where the water shed above it would have an area of about three square miles. I did not feel that I was authorized to make surveys to determine the feasibility of this plan. I have, however, examined the site of the dam and possible basin. As the result of this examination I am of the opinion that the basin would be rather shallow and that, on the whole, the plan is not very promising, although possible of execution.

If the time comes, as it undoubtedly will, when the supply for Cambridge will be filtered (in common with that from other good surface sources as the result of a higher general standard for domestic water supplies), the Cherry Brook plan might be carried out, as the shallowness of the basin would not then affect the quality of the water, as it would under present conditions.

The increase in the supply to be secured by the execution of this plan would be from one to two millions per day, according to the conditions found by actual survey.

I have no data from which to estimate the cost of the development of the Cherry Brook plan.

Summarizing the above, the maximum limit of supply from the present sources, when developed to the fullest practicable extent, will not exceed sixteen million gallons daily, with a present supply of twelve millions, based upon dry years.

With the present rate of increase in the consumption of water the supply, as it is now developed, will meet the demand until about the year 1910, and the supply, when the source is fully developed, will meet it until about 1916.

This is shown in Diagram No. 2, accompanying this report, and giving graphically the total daily consumption of water since 1872, and by the projection of the same rate of increase the future daily consumption, if the rate of increase for the past thirty years is continued.

With no change in the operation of the works, I see no reason to expect a lower rate of increase in the consumption. This rate for the whole period since 1872 has been 5.475 per cent. per year. While there have been fluctuations in the increase from year to year, the above rate, in a general way, represents it very well. This is shown on Diagram No. 2 by the dotted line or curve corresponding with the rate of 5.475 per cent. increase per annum. The small circles represent the actual average daily consumption for each year, and the full line connecting them shows the actual increase. The horizontal scale of the diagram represents the years, and the vertical scale the consumption in million gallons daily.

The rate of growth in population for the past thirty years supports the opinion that the future growth will be rapid, and that a rapidly increasing consumption of water will result. Diagram No. 3 gives the population since 1872 in a graphic form. The circles represent the population of each year, the larger ones the actual population in the census years, and the smaller ones the population in the intervening years, as it has been estimated by the Water Department. The increase from 1875 to 1900 has been at the rate of thirteen per cent. in each five years. It is interesting to note how closely the dotted line which represents an increase of thirteen per cent. in five years lies to the actual population of each census year. This curve seems to represent as closely as possible the tendency of the past rate of increase, and the only safe course seems to be to project it into the future at the same rate for some years at least. There is no apparent reason for thinking that the increase in population of Cambridge is about to decrease in its rate.

The rate of increase in the consumption of water of 5.475 per cent. per year, or about thirty per cent. in five years, is higher than that of the increase in the population, which is thirteen per cent. in five years. This is explained by the increase in the rate of the per capita consumption, or the daily consumption of water by each person; that is, the consumption of water not only increases on account of the increase in population, but as the population increases the use of water per person increases.

Diagram No. 4 gives graphically the per capita consumption since 1872. The rate of this increase has been 15.55 per cent. in five years during that entire period, and the curve representing that rate is an approximate average of the increase as shown on the diagram. Without change in condition of operation this rate of increase may be expected to continue.

The probable future population and consumption of water, shown on Diagrams 2 and 3, is given in figures in the following table.

TABLE SHOWING ESTIMATED FUTURE POPULATION AND CONSUMPTION OF WATER EACH FIVE YEARS.

Year.	Population.	Daily Consumption of Water.
1900, actual	92,308	7,263,773 gallons.
1905, estimated	104,300	9,434,000 "
1910, "	117,800	12,312,000 "
1915, "	133,200	16,068,000 "
1920, "	150,500	20,850,000 "
1925, "	170,000	27,150,000 "
1930, "	192,200	35,300,000 "

The foregoing shows that there is a present supply available to the City, when sufficient pipe line capacity to carry it to Fresh Pond is provided, of about twelve million gallons per day through dry periods and a potential supply from the present sources of fourteen to sixteen millions per day. It also shows that the present available supply will be required by the year 1910, and the full possible supply by the year 1916, unless a reduction occurs in the present rate of increase.

With this in mind, it is evident that any proposed pipe line should be of sufficient capacity to carry, in conjunction with the present conduit, the full future supply to Fresh Pond, or fifteen to sixteen million gallons per day, or it should be so designed that by future additions it can finally do it. If future additions are to be relied upon, the completed line should not cost materially more than if it were all laid at present.

If the entire possible supply from the present sources will be sufficient until only 1916, or for about twelve or thirteen years, some consideration should be given to the question of a further supply and its effect upon pipe lines now to be laid, not perhaps to the extent of increasing their capacity, but to determine whether any attempt should be made in their design to anticipate a larger draft of water from this direction and in their arrangement to provide as far as possible for the economic increase in capacity for future needs.

When the limit of the present sources is reached, there are, in a general way, two courses open to Cambridge by which to obtain a further supply of water, namely, to enter the Metropolitan system or to secure an additional supply from some source in the vicinity of the present sources.

From a general view of the subject it would seem that Cambridge is already committed (in an economic sense) to the latter course. A large amount of money is invested in the present source, which in case of en-

tering the Metropolitan district (unless under entirely different conditions from those under which the municipalities now in the district are supplied) would be practically abandoned, as the present allowance made to municipalities furnishing a portion of their own supply by the Metropolitan Water Board will barely pay the running expense of pumping the water, exclusive of fixed charges upon the pumping plant.

This being the case, if an independent supply can be obtained it will be cheaper if the annual cost of maintaining the additional supply and pumping the present one is less than the total assessment for the Metropolitan service. Unless the conditions are very unfavorable it is probable that an additional supply could be secured at a much lower annual expenditure than such annual assessment.

The most apparent source for an additional supply is from the head waters of the Shawsheen River, and if it should prove a suitable source its most economical development will probably be by pumping over the divide into the head of Hobbs Brook, from which point it can be utilized in the same way as the water of the present supply.

This must be considered as only a suggestion, as no investigation, further than examinations of maps, has been made. Such examinations, however, indicate the possibility of such a development, with storage possibilities, both on some of the streams flowing into the Shawsheen and upon the extreme upper part of the Hobbs Brook water shed. Such a plan would no doubt contemplate filtration. By the time this supply is required, however, it is quite possible that filtration of the entire supply will be demanded as already referred to.

It will thus be seen that it is desirable to keep in view, in the consideration of additional pipe lines, the possibility of a supply larger than the entire possible supply from the present sources, coming from the same direction.

DESCRIPTION OF ROUTES FOR DIFFERENT PIPE LINES GIVING LOCATION, CAPACITY AND COST.

Route No. 1. From Fresh Pond parallel with present line to lower end of thirty-six-inch pipe.

By laying a new thirty-inch pipe line from Fresh Pond, or rather from Holworthy Street summit (for it will not be necessary to duplicate the line from this point to the pond) to the lower end of the thirty-six-inch line, a delivery of about eleven and one-half million gallons per day will be secured with the present pipe in its present condition. If the pipe were cleaned, the discharge would be about 15.4 millions. This amount is, perhaps, sufficient to provide for, if the supply from this

direction is not to be increased beyond the possibilities of the present sources. If it were to be increased, it would be an economic advantage to lay a larger pipe at this time.

The cost of this line is estimated at $320,500. It is assumed that there will be no land damages to pay, as the line will be laid alongside of the present one.

A thirty-six-inch pipe laid on the same line would cost $410,000 and have a capacity of about nineteen and one-half millions per day instead of fifteen millions of the thirty-inch pipe.

Route No. 2. From Fresh Pond following the line of the Watertown Branch of the Fitchburg Railroad to Irving Street.

This line avoids the summits that prevent a full discharge of the present thirty-inch line. It is proposed to build it of concrete as a gravity main or conduit, forty-eight-inch inside diameter. It is estimated that this line, in connection with the present thirty-inch and thirty-six-inch pipe, which will be connected with it at Irving Street, will have a capacity of about eight million gallons per day with the present line in its present condition, and 11.3 millions if it is cleaned.

The cost is estimated at about $189,000, including land damages and damage to buildings and other structures.

MODIFICATION (*a*).

By laying a new thirty-inch pipe from the upper end of the concrete conduit at Irving Street parallel with the present thirty-inch pipe as far as the Waltham railroad station the discharge would be increased to sixteen millions with cleaned pipes. The cost would be increased to $324,600.

MODIFICATION (*b*).

If the new thirty-inch pipe were extended to the end of the thirty-six-inch pipe, the discharge would be increased to 19.6 million gallons. The cost will be increased to about $408,000.

Route No. 3. From Hobbs Brook basin north of Bear Hill connecting with the present thirty-inch line on Prospect Street, Waltham.

The plan of this line is to utilize the head or pressure due to the elevation of the water in Hobbs Brook basin to increase the discharge in the present line.

The line as proposed consists of a forty-eight-inch concrete conduit from Hobbs Brook basin for a distance of about nine thousand feet, or as

far as the topography affords an opportunity for a nearly level line, and of a thirty-six-inch cast-iron pipe from the end of the concrete conduit to the present thirty-inch pipe in Prospect street, a total distance of about 16,800 feet.

The capacity of this line, in connection with the present thirty-inch pipe from Prospect Street to Fresh Pond, would be about 13.6 millions per day with the thirty-inch pipe in its present condition, and seventeen millions if it were cleaned.

Water can be drawn from Hobbs Brook basin, however, to only the extent of the supply in that basin, or an average of about six million gallons, daily. As the storage capacity is very large, it may be drawn at such times as are most desirable. Used in conjunction with Stony Brook basin, drawing part of the time from the latter, preferably in the wet season, and storing in Hobbs Brook basin, and during the dry weather drawing from Hobbs Brook basin, an average daily supply in dry years of about eleven million gallons can be discharged into Fresh Pond. I estimate that the supply of Fresh Pond and its water shed is about one million per day in dry years, making a total available supply of twelve million gallons daily, or just about the supply from all sources under the present development.

To secure this result, water must be drawn from Hobbs Brook basin or about four and one-half months at the rate of seventeen million gallons per day, and from Stony Brook basin for about seven and one-half months at the rate of eight million gallons. Both of the above quantities are dependent upon having the present pipe line cleaned.

If it were not cleaned, the supply that the pipe lines could deliver at Fresh Pond, under the best management, would be about 9.4 million gallons per day, coming in the following way: 13.6 million gallons per day for a little more than five months from Hobbs Brook basin, and six million gallons per day for a little less than seven months from Stony Brook, making a total, including the supply from Fresh Pond itself, of 10.4 millions. The cost of this line is estimated at $208,169.

There is an advantage in this route that is not shared by Routes 1 and 2. This advantage lies in the fact that water can be supplied directly to Fresh Pond from Hobbs Brook basin without passing through Stony Brook basin or being mixed with the water from the rest of the water shed of Stony Brook.

This would prove very desirable in case of an epidemic of disease, such as typhoid fever, on that part of the water shed. As it is more thickly populated there than on Hobbs Brook water shed, there is greater likelihood of such an epidemic. If one should occur, the City could be supplied through this line from Hobbs Brook until the danger was past.

Route No. 4. From Hobbs Brook basin north of Bear Hill through School Street in Waltham and along the main line of the Fitchburg Railroad to Fresh Pond.

This line will consist of about nine thousand feet of thirty-six-inch concrete conduit on the same location as the forty-eight-inch concrete conduit proposed for Route No. 3, from the end of the concrete section a twenty-four-inch cast-iron pipe through the fields to Main Street in Waltham, following to this point the line of the proposed thirty-six inch cast-iron pipe in Route No. 3. It will then follow Main and School Streets in Waltham to the Fitchburg Railroad near Beaver Brook station, thence, generally by the Fitchburg Railroad, to Belmont, thence by way of Concord Avenue to Fresh Pond.

The plan for this route is for an entirely independent line from Hobbs Brook basin to Fresh Pond. The capacity of this line as proposed is about ten and one-half million gallons per day.

The total average capacity of Hobbs Brook basin (including therein the water of Beaver Pond and its water shed after it may be diverted) is about 7.6 million gallons per day. It seems desirable, however, to have a margin in the capacity of this line over the average capacity of the Hobbs Brook supply, as at times it may be desirable to draw water from this source at a greater rate than the average. This route has the same sanitary advantage as Route No. 3 of being able to supply water from Hobbs Brook basin unmixed with that from other parts of Stony Brook water shed in case of an epidemic of disease. At such times it would be desirable to draw at a greater rate than the average capacity of the Hobbs Brook supply.

Although the capacity of this pipe line is less than that of Route No. 3, the total capacity of all the lines will be greater with this route than with any of the others on account of the fact that this and the present line can be used simultaneously, this line delivering water from Hobbs Brook, and the present line from Stony Brook. With this line the total daily capacity of the lines will be approximately as follows with the pipes cleaned: —

Present line	8	million gallons
Route No. 3	10.5	" "
Total	18.5	" "

This refers, of course, only to the capacity as measured by the pipe lines and exceeds the estimated total capacity of the present sources, when fully developed, by two or three millions per day.

The cost of this line is estimated at $335,122.

MODIFICATION (*a*).

Route No. 3 can be modified by connecting it with the present thirty-inch line by a twenty-four-inch pipe through Newton Street in Waltham from Main Street to the thirty-inch in River Street, omitting for the present the laying of the twenty-four-inch from Waltham to Fresh Pond. The line, with this modification, would be used in the same way as that of Route No. 3, that is, drawing from Hobbs Brook a portion of the time and from Stony Brook the remainder. The capacity of the line, while drawing from Hobbs Brook basin, would be twelve million gallons, and with careful management the total average capacity of the lines would be ten million gallons daily, making, with Fresh Pond, a total supply of eleven million gallons. The estimated cost is $174,500.

When it becomes necessary to have greater capacity, the line can be extended through Belmont to Fresh Pond as originally proposed. The connection to the present line would add about $7,500 to the final cost. It might be worth its cost, if at some time in the future it becomes desirable to draw large quantities from Hobbs Brook basin alone during the prevalence of disease on the rest of the water shed. The final line will not be required until about 1908, if the present increase in consumption of water continues, and thus the interest on the difference in cost of the full and partial line will be saved for that time, amounting to from $25,000 to $30,000.

SUMMARY.

The following is a summary of the capacity and cost of the various lines: —

Pipe Line.	Estimated Cost.	Estimated Daily Capacity in Gallons.	
		With Present Line Cleaned.	With Present Line in Present Condition
By Route No. 1	$320,500 00	15,400,000	11,500,000
" " " 2	188,975 00	11,300,000	8,000,000
No. 2, Modification (*a*)	342,600 00	16,000,000	.....
" 2, " (*b*)	407,912 00	19,600,000	.....
By Route No. 3	208,169 00	11,000,000	9,400,000
" " " 4	338,935 00	18,500,000	16,500,000
No. 4, Modification (*a*)	174,497 00	10,000,000	8,800,000

The above estimates of capacity refer only to pipe line capacity, and do not include the supply from Fresh Pond itself, which will add one million gallons per day to them, except when they exceed the full amount of

the supply, which is at present twelve millon gallons per day, and may be increased to sixteen millions with full development of the water shed.

NOTE. All estimates of capacity are based upon *cleaned* pipe, not *clean new* pipe, which would have a greater capacity that that given. All new lines will be provided with suitable entrance chambers or manholes for the insertion of scrapers.

Detailed estimates of the cost of each line are annexed to this report. These estimates include a sum for land damages, rights of way, etc., which, while not an exact or an expert estimate of such costs, is believed to be sufficient to cover them. This is, however, a matter of much uncertainty, and the estimate might be exceeded in this respect, and this point should be considered when making appropriations. The estimates are based upon ordinary contract prices for such work.

The different routes are shown in a general way upon a plan accompanying this report. While the estimates are based upon the locations shown, the exact location may be changed, and in some cases further careful study for the final location may show that a saving in cost may be effected by such changes.

RECOMMENDATION OF ROUTE.

The advantages and capacities of some of these lines are so nearly balanced that the selection of the best one is rendered rather difficult. By again considering some of the requirements the question may become clearer.

First. The line selected should either be of sufficient capacity in conjunction with the present line to deliver about sixteen million gallons (the full future supply of present sources) or should be capable of being developed or extended to that amount at a cost proportionate to the additional amount required.

Second. It is desirable in selecting a route for present construction to provide for the separate delivery of the water of Hobbs Brook basin to Fresh Pond on account of sanitary reasons as already explained.

Third. It is desirable if possible, without materially increased present expense, to select a route that will not only provide for the delivery of the entire future supply from the present sources, but will give the best opportunity for future increase in capacity in case a further supply (than that which can be secured from present sources) should be obtained in the same general direction, thus eventually requiring the discharge of a much greater quantity along the same general lines.

Route No. 1 very nearly satisfies the first requirement, does not satisfy the second, and will by the laying of a second pipe alongside the

present one practically prevent the increase in future capacity demanded by the third, by monopolizing the natural route for a future line. Its cost is not so low in comparison that its adoption is made desirable on that account.

Route No. 2, while having sufficient capacity for several years, has not enough for the probable future of this source, and does not satisfy the first requirement, neither does it satisfy the second.

By extension according to Modification (*a*) or (*b*), the first requirement would be met, but at a larger cost than that of any other route proposed. The second requirement would not be met, and the relation of the line to the third would be the same as of Route No. 1, so that this require ment would not be satisfied.

Route No. 3 does not satisfy the first requirement without an extension, which would make it more expensive in the end than Route No. 4. It satisfies the second one, also the third, by leaving the line of the present pipe open for a second line of any size that the future shall show to be nceessary.

Route No. 4 satisfies all three of the requirements. Its first cost is greater than that of Route No. 3, but not so great as that would be when extended to have a capacity in connection with the present pipe equal to the full future capacity of the source, or about sixteen millions daily. Its cost is not so great as that of any of the other routes having a capacity equal to the full supply. It will not need the careful management required by Route No. 3 of alternate drawing of water from Hobbs Brook basin and from Stony Brook basin in suitable quantities and at a proper time to insure its full total delivery.

By the modification suggested in Route No. 4 of laying the pipe only to Newton Street at present, and connecting with the present thirty-inch line, it will have nearly the same present capacity as Route No. 3. It will have to be managed in the same way as the latter, and its present cost will be but $175,000, or a present saving of $160,000, which would not have to be expended for four or five years, during which time the saving in interest alone would be from $25,000 to $30,000.

In view of the above, I recommend Route No. 4 as the best one for a new pipe line. It is probably a matter for other than strictly engineering judgment whether it will be the better policy to lay the entire line at once or to adopt for the present the modification suggested.

With that modification it would undoubtedly meet the demands until about 1908, and if for any reason the future increase in consumption should be less rapid than the past, until a later date. The adoption of a meter system would probably render its capacity sufficient until 1914, as shown later in this report.

METERS.

To made the consideration of the foregoing matter complete, it seems essential that an examination of the question of a general adoption of the meter system be made, in its relation to the present supply and its further development, and the policy to be pursued in building new pipe lines.

While the consumption of water in Cambridge is not large, compared with many cities of its size, which sell water by fixture rates, it is large compared with all places where a large percentage of the services are metered.

It must, of course, be considered that quite a large part of the total consumption in Cambridge is used for manufacturing purposes, a larger proportion than in most places. This part of the supply is already metered, and no reduction in it can be expected. The water used for manufacturing in 1902, as nearly as I can ascertain, was about 760,000,000 gallons, or twenty-six per cent. of the total. The per capita use for manufacturing was about twenty-two gallons per day out of a total of 85.27, leaving sixty-three gallons per capita for all other uses.

I believe that the loss from the street mains and services is very small and that if there is any important waste of water it is within the houses of the consumers.

The following table gives the per capita consumption in the larger cities of the State in which seventy-five per cent. or more of the services are metered for the year of 1900 : —

Name of Place.	Population.	Per cent. of Metered Service.	Consumption Per Capita.
Brockton	40,003	82	29 gallons
Fall River	104,863	94	36 "
Lawrence	62,559	77	53 "
Newton	33,587	85	62 "
Worcester	118,421	94	69 "
Average	.....	..	49.8 "
Maximum	.....	..	69 "
Minimum	.....	..	29 "

In the City of Worcester, which has the largest per capita consumption of any in the above list, it is sixty-nine gallons as against eighty-five in Cambridge. The use of water for manufacturing purposes in Worcester is also very large, being over forty-two per cent. of the total in 1902, as compared with twenty-six per cent. in Cambridge.

I do not wish to overload this report with detail and comparison. I have, however, made a careful study of this question and of the experience in metered places, and believe that if meters were placed upon

seventy-five per cent. of the services in Cambridge (including those now metered) the per capita consumption could be reduced at least fifteen gallons from the present rate, and that by 1905 the per capita consumption would not exceed seventy-four gallons instead of ninety-one, as it will be if it continues to increase as it has in the past. I believe that the future increase in the per capita consumption would be very largely checked by meters.

Diagram No. 4 gives the future per capita consumption as I estimate it, if seventy-five per cent. of the services were to be metered. The diagram shows the amount per capita that is estimated for leakage from reservoirs, mains and service pipes, for manufacturing, for domestic and public uses, and the total. All of the estimates are based upon data which, although incomplete, furnish an indication of the results to be expected. I believe this estimate of future per capita consumption under a system of meters is too large rather than too small.

Diagram No. 4 also gives the future per capita consumption projected on the rate of the past thirty years. The divergence between the estimate with meters and that without is very marked. A curve of future total daily consumption with meters is given on Diagram No. 2 for comparison with the curve of future consumption obtained by projecting the rate of increase of the past thirty years.

Both are based upon future growth in population at the same rate as that of the past thirty years.

The following table gives in figures the estimate of the future population and the daily consumption of water with and without meters each five years. The figures are taken from Diagrams 2 and 3: —

ESTIMATE OF FUTURE POPULATION AND CONSUMPTION OF WATER.

Year.	Population.	Daily Consumption of Water in Gallons.	
		Without Meters.	With Meters.
1905	104,300	9,434,000	7,730,000
1910	117,800	12,312,000	9,670,000
1915	133,200	16,068,000	11,660,000
1920	150,500	20,850,000	14,150,000
1925	170,000	27,150,000	16,820,000
1930	192,200	35,300,000	19,900,000

These estimates of consumption show that the supply, as developed at present (of twelve millions daily) will meet the demand until about 1910 without meters and until about 1916 with meters. The entire probable supply from present sources (of sixteen millions daily) will be sufficient until 1915 without meters and until 1923 with meters.

There were in 1902 14,569 services, and if the increase of the past year continues, there will be about 15,000 in 1905. To meter seventy-five per cent. of these services will require 11,250 meters. In 1902 there were 2,113 meters already set, leaving 9,137 additional meters to be installed and maintained. I estimate that the total annual cost of maintaining these meters will average $2.15 each. This includes interest on cost, a sinking fund to renew the meters in sixteen years, repairs, care, reading and inspection. The total annual cost in 1905 for the meters will be $19,645 with about $260 additional each year for the annual increase in number of meters.

To determine approximately the economic effect of the general adoption of meters, I have made estimates of the additional annual expense caused by meters and the annual saving due to their use. This saving will consist in the cost of the coal saved on account of pumping a smaller quantity of water, the interest, depreciation or sinking fund and maintenance on new construction during the term which such construction can be postponed on account of the use of meters.

In these figures I have assumed that the coustruction of the lower part of the line on Route No. 4 would be postponed until required, which would be in 1908 without meters and in 1914 with them. I have estimated that the entire development of the present sources would be required in 1915 without meters and in 1923 with meters.

I have made estimates upon two methods of meeting the demand when the full capacity of the present source is reached, one upon a development of a supply from the head waters of the Shawsheen River, and the other upon the entrance into the Metropolitan system. While the estimate of annual expenses under either system cannot be considered as being very close, I believe that in neither of them has there been any discrimination in favor of the meter system, but the determination of doubt has been the other way or against that system.

This I believe is the case all through, that is, the reduction in consumption due to meters is underestimated, and the amount of the annual saving is also underestimated. This is perhaps no more than safe, as the meters should make out a sure case, if the expense of their installation is to be undertaken.

The following tables give the results of my estimates, and show what I believe may be fairly expected.

Table A is based upon a supposed development of a supply from Shawsheen River when the capacity of the present source is reached, and Table B upon entrance into the Metropolitan system.

Incidentally these tables give the comparative cost of securing the future supply by these two methods, according to my present rough estimate.

Column 5 of these tables gives the total annual saving due to the use of meters; Column 6 gives the annual cost of the meter system Column 7 gives the annual gain or loss due to the system; Column 8 gives the accumulated or net gain or loss at any time.

Table A.

GIVING ECONOMIC RESULTS OF THE USE OF METERS.

Year.	Annual saving in consumption of water by use of meters. Million gallons.	Annual saving in cost of coal by use of meters.	Annual saving in interest and sinking fund by use of meters.	Total annual saving by use of meters.	Additional annual cost of meters.	Annual gain or loss by use of meters.	Accumulated gain or loss by use of meters.
1	2	3	4	5	6	7	8
1905	640	$1,715	.....	$1,715	$19,645	—$17,930	.....
1906	690	1,849	.....	1,849	19,905	—18,056	—$35,986
1907	753	2,026	....	2,026	20,165	—18,139	—54,125
1908	870	2,331	$9,600[1]	11,931	20,425	—8,494	—62,619
1909	920	2,468	9,600	12,068	20,685	—8,617	—71,236
1910	1,040	2,780	9,600	12,380	20,945	—8,565	—79,801
1911	1,090	2,920	34,600[2]	37,520	21,205	+16,315	—63,486
1912	1,192	3,194	34,600	37,794	21,465	+16,329	—47,157
1913	1,334	3,574	34,600	38,174	21,725	+16,449	—30,708
1914	1,440	3,860	25,000[3]	28,860	21,985	+6,875	—23,833
1915	1,560	4,180	25,000	29,180	22,245	+6,935	—16,898
1916	1,726	4,630	95,000[4]	99,630	22,505	+77,125	+60,227
1917	1,897	5,085	70,000[5]	75,085	22,765	+52,320	+112,547
1918	2,080	5,575	70,000	75,575	23,025	+52,550	+165,097
1919	2,260	6,070	70,000	76,070	23,285	+52,785	+217,882
1920	2,420	6,480	70,000	76,480	23,545	+52,935	+270,817
1921	2,625	7,040	70,000	77,040	23,805	+53,235	+324,052
1922	2,902	7,780	70,000	77,780	24,065	+53,715	+377,767
1923	3,125	8,380	70,000	78,380	24,325	+54,055	+431,822
1924	3,420	9,160	.....[6]	.....	24,585	.....	.....

[1] Route No. 4 must be finished this year to supply the consumption without meters.
[2] Full development of water shed must be made this year for supply without meters.
[3] Route No. 4 must be finished this year for use with meters.
[4] Further supply must be developed this year for use without meters.
[5] Full development of water shed made this year for use with meters.
[6] Further supply must be secured this year for use with meters.

Table B.

GIVING ECONOMIC RESULTS OF THE USE OF METERS.

Year.	Annual saving in consumption of water by use of meters. Million gallons.	Annual saving in cost of coal by use of meters.	Annual saving in interest and sinking fund by use of meters.	Total annual saving by use of meters.	Additional annual cost of meters.	Annual gain or loss by use of meters.	Accumulated gain or loss by use of meters.
1	2	3	4	5	6	7	8
1905	640	$1,715	.....	$1,715	$19,645	—$17,930	.....
1906	690	1,849	.....	1,849	19,905	—18,056	—$35,986
1907	753	2,026	.....	2,026	20,165	—18,139	—54,125
1908	870	2,331	$9,600[1]	11,931	20,425	—8,494	—62,619
1909	920	2,468	9,600	12,068	20,685	—8,617	—71,236
1910	1,040	2,780	9,600	12,380	20 945	—8,565	—79,801
1911	1,090	2,920	34,600[2]	37,520	21,205	+16,315	—63,486
1912	1,192	3,194	34,600	37,794	21,465	+16,329	—47,156
1913	1,334	3,574	34,600	38,174	21,725	+16,449	—30,708
1914	1,440	3,860	25,000[3]	28,826	21,985	+6,841	—23,867
1915	1,560	4,180	25,000	29,180	22,245	+6,935	—16,932
1916	1,726	4,630	146,000[4]	150,630	22,505	+128,125	+111,193
1917	1,897	5,085	124,200[5]	129,285	22,765	+106,520	+217,713
1918	2,080	5,575	127,800	133,375	23,025	+110,350	+328,063
1919	2,260	6,070	131,200	137,270	23,285	+113,985	+442,048
1920	2,420	6,480	134,500	140 980	23 545	+117,435	+559,483
1921	2.625	7,040	138,500	145,540	23,805	+121,735	+681,218
1922	2,902	7,780	142,200	149,980	24,065	+125,915	+807,133
1923	3,125	8,380	146,200	154,580	24,325	+130.255	+937,388
1924	3,420	9,160	150,300	159,460[6]	24,585	+134,875	+1,072,263

[1] Route No. 4 must be finished this year to supply the consumption without meters.
[2] Full development of water shed must be made this year for supply without meters.
[3] Route No. 4 must be finished this year for use with meters.
[4] Metropolitan service goes on this year for use without meters.
[5] Full development of water shed made this year for use with meters.
[6] Metropolitan service goes on this year for use with meters.

Table A shows that the cost will be greater with the meter system than without until the year 1915, when the net deficit caused by it will be about $17,000. In the following year, however, this is changed to a net gain of $60,000 due to the increase in the expense account caused by the introduction of a further supply which will be required at this time if meters are not used.

The net gain by 1924, the time when a further supply must be introduced to meet the demands if meters are used, is shown to be $431,822.

As already stated, the results of these tables are based upon securing a further supply from the Shawsheen River.

If this were not possible or desirable, and it became necessary to enter the Metropolitan system to secure a suitable supply, Table B gives the results of the use of meters under these conditions.

In 1915 the net loss by use of meters would be about $17,000. In 1916 this is changed to a net gain of $111,193, and in 1924 a net gain of $1,072,263 is shown.

The results in the tables show that a large saving will be made eventually by the use of meters.

While this is true as a final result, it may be said that the result for the next ten or twelve years is a net loss, and that the proper policy is to postpone the adoption of meters until the gain by their use would equal their cost of maintenance, or until 1910 or 1911 as shown in Column 7.

This reasoning, however, is not sound, as meters cannot be installed and their benefit secured in one year. It is neither desirable nor economical to install as many meters in so short a time. The best plan is to introduce them gradually as the result of a settled policy and in accordance with the information gained by study of the consumption in different locations and classes of service, and of results obtained by meters previously set.

I am of the opinion that five years is none too long a time for the installation of as many meters as will finally be desirable in Cambridge, and that if a meter system is to be adopted a beginning should soon be made and a certain proportion of the meters be set each year.

With a careful study of the consumption in different localities, and among different classes of consumers, and an intelligent application of meters in accordance with the result of such study, I am of the opinion that the metering of only twenty-five per cent. of the services now unmetered, or the setting of three thousand meters in addition to those now in use, will result in a marked decrease in the per capita consumption, and will clearly show the desirability of still further extending the system.

It may be somewhat misleading to use the term "decrease in per capita consumption" in this connection, as it is not in any way the purpose, in advocating the general installation of meters, to restrict the actual *use* of water by the individual consumer, but to curtail the waste that is constantly going on by reason of leaking fixtures.

This waste does not contribute in any way to the convenience, comfort or luxury of the consumer, but is simply useless in every respect. It can be inexpensively reduced or stopped entirely by a reasonable amount of care and attention to the plumbing fixtures.

The meter system, while allowing latitude for an abundant, and even lavish, *use* of water, tends to automatically restrict the *waste* by calling the consumer's attention to it through an increase in the quarterly bills, and making it for his own interest to see that all fixtures are practically tight.

This waste of water in the house is entirely under the control of the consumer, and the water department is powerless to restrict it, except by the use of meters.

It is no doubt unnecessary to make the foregoing explanation to your Board, as it has already recommended in its annual reports the extended use of meters.

There are those, however, who seem to believe sincerely that the use of meters means the restriction of the *use* of water, and is, therefore, undesirable from the standpoint of comfort and sanitation.

There is really no foundation for this belief, as may be seen from the results in the increasing number of metered works, where the per capita consumption is very much less than in unmetered works of the same class, and where there is no complaint from any one of being in any way limited in the use of water.

In concluding this report it seems proper to state that, in view of the results of my investigations of the pipe line, as given above, I believe that no time should be lost in adopting all practical means of restricting waste, and of increasing the supply by cleaning the present pipe line, if it is found practicable to do so in order that sufficient time may be secured in which to properly prepare for the laying of the necessary additional pipe line and its construction in an economical manner without undue haste. That your Board appreciates that immediate preparation should be made for the construction of an additional pipe line is shown by the fact that in four successive annual reports it has called attention to this matter, and recommended action upon it. It is therefore unnecessary for me to further emphasize the present condition as shown by the results of the investigation into the discharging capacity of the pipe line from Stony Brook basin to Fresh Pond, as given in the foregoing report.

Respectfully submitted,

(Signed) FREEMAN C. COFFIN.

ROUTE No. 1.

Estimate of Cost.

34,000	feet 30-inch pipe, at $7.25	$246,500 00
6	30-inch gates and chambers	2,400 00
10	manholes and blow-offs	3,000 00
	Connection with present pipe and meters	2,500 00
	Other special castings	2,000 00
		$256,400 00
	Add 25 per cent. for engineering and contingencies	64,100 00
		$320,500 00

ROUTE No. 2.

Estimate of Cost of Line from Irving Street, Watertown, to Fresh Pond.

16,105	cubic yards earth excavation, 0 to 7 feet deep,	at	$ 60	$9,663 00
7,815	" " " " 7 to 14 " "	at	1 00	7,815 00
625	" " " " 14 to 21 " "	at	1 50	937 50
1,841	" " " or rock in tunnel	at	10 00	18,410 00
845	" " rock excavation	at	5 00	4,425 00
776	" " " " 7 to 14 feet deep,	at	6 00	4,656 00
115	" " " " 14 to 21 " "	at	7 00	805 00
18	" " " " 21 to 25 " "	at	8 00	144 00
				$46,855 50
12,350	feet 48-inch concrete conduit	at	4 50	55,575 00
150	feet 48-inch C. I. pipe	at	11 00	1,650 00
	Connection at Irving Street, 2-30-inch to 48-inch			1,000 00
4	30-inch gates	at	275 00	1,100 00
	Entrance chambers			1,000 00
	Outlet into Fresh Pond			2,000 00
	Restoring street surfaces			1,400 00
	Gate and manhole chambers			600 00
				$111,180 50
	Add 25 per cent. for engineering and contingencies			27,795 12
				$138,975 62
	Add land damages and damage to buildings			50,000 00
				$188,975 62

Estimate of Cost of Additions or Modifications to Route No. 2.

30-Inch Cast Iron Pipe.

(*a*) FROM IRVING STREET TO WALTHAM STATION.

16,000	feet 30-inch pipe	at	$ 7 25	$116,000 00
4	30-inch gates and chambers	at	400 00	1,600 00
6	blowholes and blow-offs	at	300 00	1,800 00
	Connections with present pipe and meters			2,500 00
	Other special castings			1,000 00
				$122,900 00
	Add 25 per cent.			30,725 00
				$153,625 00

30-Inch Cast-Iron Pipe.

(*b*) FROM IRVING STREET TO THE THIRTY-SIX-INCH PIPE.

23,000	feet 30-inch pipe	at $ 7 25	$166,750 00
5	30-inch gates and chambers	at 400 00	2,000 00
8	manholes and blow-offs	at 300 00	2,400 00
	Connections with present pipe and meters		2.500 00
	Other special castings		1,500 00
			$175,150 00
	Add 25 per cent.		43,787 50
			$218,937 50

Either of the above estimates must be added to the cost of Route No. 2 (or $188.975) to ascertain the total cost in each case.

ROUTE No. 3.

Estimate of Cost.

Concrete Conduit 8,900 Feet Long.

16,335	cubic yards earth excavation, 0 to 8 feet deep, at $ 50		$8 167 50
3,600	" " " " 8 to 14 " " at 90		3,240 00
372	" " " " 14 to 20 " " at 1 25		465 00
1,815	" " rock " 0 to 8 " " at 4 00		7,260 00
420	" " " " 8 to 14 " " at 6 00		2,520 00
42	" " " " 14 to 20 " " at 7 00		294 00
8,900	feet 48-inch concrete conduit at 4 50		40,050 00
			$61,996 50

7,800 Feet 36-Inch Cast-Iron Pipe.

7,278	cu. yds. earth excavation, 0 to 8 ft. deep, at $ 60	$4,366 80	
1,440	" " " " 8 to 14 " " at 1 00	1,440 00	
1,322	" " rock " 0 to 8 " " at 4 00	5,288 00	
444	" " " " 8 to 14 " " at 6 00	2,664 00	
180	" " " " 14 to 20 " " at 7 00	1,260 00	
40	" " " " 20 to 26 " " at 8 00	320 00	
1,600	tons 36-inch pipe at 30 00	48,000 00	
4	36-inch gates and chambers at 450 00	1,800 00	
4	manholes, blow-offs and chambers at 375 00	1,500 00	
	Hauling and laying 7,800 feet 36-inch pipe at 1 50	11,700 00	
	Special castings	4,000 00	
			$82,338 80
	Intake and connection at Hobbs Brook basin		13,000 00
	Connection at Riverview with present conduit		1,000 00
			$158,335 30
	Add 25 per cent. for engineering and contingencies,		39,833 82
			$198,169 12
	Add for land damages, rights of way, etc.		10,000 00
			$208.169 12

ROUTE No. 4.

Estimate of Cost.

Concrete Conduit 8,900 feet long.

13,270	cubic yards	earth	excavation,	0 to 8	feet	deep,	at	$	50	.	$6,635 00
2,938	"	"	"	8 to 14	"	"	at		90	.	2,644 20
303	"	"	"	14 to 20	"	"	at	1	25	.	378 75
1,414	"	rock	"	0 to 8	"	"	at	4	00	.	5,896 00
326	"	"	"	8 to 14	"	"	at	6	00	.	1,956 00
34	"	"	"	14 to 20	"	"	at	7	00	.	238 00
											$17,747 95
8,900	lineal feet 36-inch concrete conduit						at	3	50	.	31,150 00
											$48,897 95

Cast Iron Pipe Line.

34,150	feet 24-inch pipe, laid at $5.00 complete,	$170,750 00	
2,000	cubic yards rock excavation, at $4.00,	8,000 00	
10	24-inch gates and chambers,	3,000 00	
10	manholes and blow-offs,	2,500 00	
	Meter and connection,	1,500 00	
	Gate-house and outlet at Fresh Pond,	2,500 00	
	Intake and connection at Hobbs Brook,	6,000 00	
	Special castings,	4,000 00	
			$198,250 00
			$247,147 95
	Add 25 per cent. for engineering and contingencies,		61,786 99
			$308,934 94
	Land damages, rights of way, etc.,		30,000 00
			$338,934 94

ROUTE No. 4.

Modification (*a*) Connected to Present Line at Newton Street.

Estimate of Cost.

8,900	feet concrete conduit, same as in estimate of Route No. 4		$48,898 00
12,500	feet 24-inch pipe, laid, at $4.80	$60,000 00	
1,800	yards rock, at $4.00	7,200 00	
5	24-inch gates and chambers at $300.00	1,500 00	
5	manholes and blow-offs	1,250 00	
	Intake and connection at Hobbs Brook	6,000 00	
	Special castings	2,000 00	
	Connection with 30-inch at Newton Street	750 00	
			78,700 00
			$127,598 00
	Add 25 per cent.		31,899 50
			$159,497 50
	Land damages, rights of way, etc.		15,000 00
			$174,497 50

REPORT OF THE BOARD OF PARK COMMISSIONERS

To the Honorable, the City Council of the City of Cambridge:—

Gentlemen:— We have the honor to herewith submit the eleventh annual report of the Board of Park Commissioners together with the tenth annual report of the General Superintendent of Parks, as required by Section 4 of the Ordinance establishing a Park Department.

With an appropriation of $58,293.95, the Park Commissioners feel fully satisfied that they are able to show results as good as could be expected. About 41,000 yards of gravel filling have been deposited at Section C according to contract at the rate of fifty cents a yard. The section between River and Magazine streets is being filled by the same contractor with filling for which the City is receiving three cents a yard. Three thousand dollars were appropriated by the City Council for construction at Rindge Field. Two thousand five hundred dollars were appropriated for improving Cambridge Field Shelter and we are pleased to say that shower baths and all the necessary conditions attending, are ready for public use.

Being desirous of extending the park work as rapidly as possible within the limits of the appropriation, we feel the necessity of bringing to the mind of your honorable body the fact that the accomplishing of much work in this department is attended with large expense and we beg that for the incoming year your honorable body will be liberal with appropriation.

FINANCIAL STATEMENT.

PARK LOAN.

Amount of unused balance of 1902 appropriation reappropriated December 17, 1902	$793 95
Amount appropriated January 29, 1903	10,000 00
Amount appropriated March 11, 1903	40,000 00
Amount appropriated November 12, 1903	7,500 00
	$58,293 95
Improvements at Rindge Field.	
Amount appropriated June 24, 1903	3,000 00
Baths and Lockers.	
Amount appropriated June 24, 1903	2,500 00

PARK MAINTENANCE.

Commons, Squares and Public Grounds.		
Amount appropriated March 11, 1903		$5,000 00
Shade Trees.		
Amount appropriated March 11, 1903		5,000 00
Cambridge Field and Shelter.		
Amount appropriated March 11, 1903		4,500 00
Brown Tail Moth Extermination.		
Amount appropriated January 8, 1903	$2,500 00	
Amount appropriated February 28, 1903	1,000 00	
Amount of revenue received during year and appropriated by order March 26, 1903	250 03	
		3,750 03
Sections G and H.		
Amount appropriated March 11, 1903		3,300 00
Sections A, B, D, F and Rindge Field.		
Amount appropriated March 11, 1903	$2,500 00	
Amount appropriated June 24, 1903	500 00	
		3,000 00
Bath House.		
Amount appropriated March 11, 1903		2,200 00
General Account.		
Amount appropriated March 11, 1903		550 00

During the year bills payable from Park Loans have been approved by the Board and certified to the Auditor to the total amount of $54,547.05, as follows:—

PARK LANDS AND CONSTRUCTION.

River Parkway, Section A.		
Construction account	$25 88	
Land account	7,500 00	
		$7,525 88
River Parkway, Section B.		
Construction account	$2,978 16	2,978 16
River Parkway, Section C.		
Construction account	20,334 08	
Land account	3,000 00	
		23,334 08
River Parkway, Section D.		
Construction account	1,929 88	1,929 88
River Parkway, Section E.		
Construction account	5 25	5 25
River Parkway, Section F.		
Construction account	5,229 22	
Land account	1,059 26	
		6,288 48

River Parkway, Section G.		
Construction account	$141 20	$141 20
Fort Washington.		
Construction account	929 79	929 79
Rindge Field.		
Construction account	928 00	928 00
Nursery.		
Construction account	618 13	618 13
Broadway Park.		
Construction account	326 62	326 62
Cambridge Field.		
Construction account	252 56	252 56
General Account.		
Construction account	2,705 29	2,705 29
Office Expenses.		
Construction account	1,084 64	1,084 64
Amount expended		$49,047 96
Balance unexpended		9,245 99
Improvements at Rindge Field.		
Construction account	$2,999 09	$2,999 09
Balance unexpended		$0 91
Baths and Lockers.		
Construction account	$2,500 00	$2,500 00

During the year bills payable from Park Maintenance have been approved by the Board and certified to the Auditor, as follows :—

	Amount expended.	Balance unexpended.
Commons, Squares and Public Grounds	$4,997 16	$2 84
Shade Trees	4,949 81	50 19
Cambridge Field and Shelter	4,499 79	21
Brown Tail Moth Extermination	3,639 13	110 90
Sections G and H	3,280 84	19 16
Sections A, B, D, F and Rindge Field	2,979 33	20 67
Bath House	2,193 95	6 05
General Account	548 13	1 87

From the above it will be seen that the amount expended during the year under Park Loans was divided as follows :—

Construction account	$42,987 79
Land account	11,559 26
	$54,547 05

A detailed classification of the expenditures will be found in the report of the General Superintendent.

Since the beginning of the work in 1893 there has been expended to date, of money raised under Park and Esplanade Loans, the sum of $1,409,444.43.

The division is as follows:—

River Parkway, Section A.		
Construction account	$154,931 52	
Land account	9,401 83	
		$164,333 35
River Parkway, Section B.		
Construction account	$90,862 13	90,862 13
River Parkway, Section C.		
Construction account	$71,834 36	
Land account	31,701 08	
		103,535 44
River Parkway, Section D.		
Construction account	$92,997 96	
Land account	95,047 25	
		188,045 21
River Parkway, Section E.		
Construction account	$935 72	
Land account	60,110 00	
		61,045 72
River Parkway, Section F.		
Construction account	$50,046 03	
Land account	67,491 62	
		117,537 65
River Parkway, Section G.		
Construction account	$120,669 41	
Land account	85,614 82	
		206,284 23
River Parkway, Section H.		
Construction account	$13,135 30	13,135 30
Cambridge Field.		
Construction account	$127,315 28	
Land account	78,884 85	
		206,200 13
East Cambridge Embankment.		
Construction account	$87,498 88	
Land account	45,231 40	
		132,730 28
General Account.		
Construction account	$44,965 40	44,965 40
Rindge Field.		
Construction account	$10,158 99	
Land account	31,461 85	
		41,620 84
Office Expenses.		
Construction account	$13,762 49	13,762 49

Broadway Park.		
Construction account	$11,635 27	$11,635 27
Nursery.		
Construction account	6,779 32	6,779 32
Improvements at Rindge Field.		
Construction account	2,999 09	2,999 09
Hastings Square.		
Construction account	2,683 07	2,683 07
Baths and Lockers.		
Construction account	2,500 00	2,500 00
Winthrop Square.		
Construction account	1,866 26	1,866 26
Fort Washington.		
Construction account	929 79	929 79
Washington Elm.		
Construction account	466 98	466 98
Porter Square.		
Construction account	20 87	20 87
		$1,413,938 82
Less Park revenue for 1894 and 1896 merged into land and construction accounts		4,494 39
		$1,409,444 43

Of the whole amount of Park Loans expended to December 1, 1903, 35½ per cent. has been for land and 64½ per cent. for construction, as follows :—

Land account (less "revenues")	$500,450 31
Construction account	908,994 12
	$1,409,444 43

Respectfully submitted,

ANDREW J. CONLIN,
GEO. HOWLAND COX,
JNO. E. DWYER, M. D.,
Park Commissioners.

REPORT OF THE GENERAL SUPERINTENDENT OF PARKS

CAMBRIDGE, December 1, 1903.

To the Board of Park Commissioners of the City of Cambridge: —

GENTLEMEN, — I have the honor to present my first annual report as General Superintendent of Parks, covering the financial year 1903.

The work of construction and maintenance on the different sections, commons, squares, etc., is as follows: —

SECTION A.

(*Area 9.07 acres.*)

Section A extends from the south line of Main Street as widened for the approach to the new bridge, to the west line of the third street east of Massachusetts Avenue.

Seven Welsbach lights have been maintained here during the year.

The trees on this section are in a very poor condition and need restaking and bracing up with strong fastenings.

One lamp post and four dead trees have been removed.

The easterly end of this section should be resurfaced, as there are several bad and dangerous holes in the street.

SECTION B.

(*Area 19.72 acres.*)

Section B extends from the west line of the third street east of Massachusetts Avenue to the west line of the fourth street west of the avenue, but does not include Massachusetts Avenue.

Four men have been employed here the greater part of the season in the care of lawns, streets and shrubbery; also during the summer months a watering cart has been employed.

The settees should be painted, and I would suggest that more settees be placed out next season.

The shrubbery is in good condition but more planting will have to be done in some of the beds.

The trees will need restaking and tying as they are in a bad condition.

The usual amount of work has been done on the trees, shrubs, turf covered strips, walks and roads of this section.

The river walk is in poor shape, also the walk on the property side; both require filling and top surfacing. The unevenness of these roads has prompted visitors to walk on the bordering turf, thereby injuring the same.

The trees have done fairly well with the exception of those next to the sea wall, which fall short of the vigor expected.

It would be well if the property owners were to build up their land to a corresponding grade with the adjoining park land, thus avoiding the present ragged appearance.

The catch basins on the side next the river have been cleaned.

Eight lamp posts have been removed.

The iron fence has been cleaned and painted.

Eight dead trees have been removed.

Twenty-six Welsbach lights have been maintained during the year.

The streets on either side of the third and fourth lawns west of Massachusetts Avenue should be graded, also the fourth lawn.

There remains to be built on this section about 357 feet of sea wall in order to complete the proposed plan.

SECTION C.

(Area 13.39 acres.)

Section C extends from the west line of the fourth street west of Massachusetts Avenue to the east line of Brookline Street, but does not include the right of way of the Grand Junction Railroad.

The principal construction work of the season has been performed here. In May, 1903, a contract was awarded to William B. Mullen for furnishing 50,000 cubic yards of gravel and constructing the roadway from the end of the present sea wall to the Boston & Albany Railroad. Owing to unforseen delays this work was not started until the first of August. The material was dredged from the river. Only 38,851 cubic yards of gravel have been delivered to date, at a cost of $18,007.26. As this shortage was foreseen, and as it would have left the roadway in an incomplete and unsatisfactory condition, it was decided to narrow the fill, only constructing the thirty foot drive. It is intended to have this thrown open to the public by the first of the year.

As the river gravel is more or less of a sandy nature and not suitable for the surface of the roadway, it will be necessary another year to place a thin layer of some binding material upon it.

The Bay State Dredging Company was given the right to dump mud

outside the wooden bulkhead, upon the payment of three cents per cubic yard. About 22,774 cubic yards have been received in this manner, thus saving the department considerable expense. This material makes a very satisfactory foundation for the beach construction which should be completed next year.

Considerable filling has been received between Brookline Street and the Boston & Albany Railroad.

During the season material has been received as follows:— about 2,810 cubic yards of cinders at a cost of $702.52; about 1,069 cubic yards of filling at a cost of $182.46; and about 125.6 cubic yards of loam at a cost of $86.61.

The Sewer Department delivered at this section 368 cubic yards of filling, in exchange for which we paid for Sewer Department labor to the amount of $92.00.

The coming season, the road, walks and tree spaces should be put in order as soon as possible.

The beach also can be carried from Brookline Street to end of sea wall much cheaper the coming year than later.

The early completion of the roadway to connect with Section D would open an avenue of travel that would be much appreciated by the traveling public and also by the owners of property adjoining the parkway.

SECTION D.

(Area 38.31 acres.)

Section D extends from the west line of Brookline Street to the south line of River Street.

On this section the usual work has been done on the trees, shrubs, turf covered strips, walks and roads.

Twenty-nine Welsbach lights have been maintained here, eighteen on the driveway and eleven on the Island, together with three arc lights on the beach during the bathing season.

Three men have been employed here during the season.

The walks are in a very bad condition and should be brought up to grade.

The trees show very pleasing results.

The playground east of Magazine Street is in a poor condition, and in order to keep the ground dry a permanent tide gate should be built in the Pearl Street sewer in the line of the dyke, as recommended last year. The construction of the little children's playground should be carried out.

In the early spring the bathing beach at the foot of the slope showed considerable mud, which had to be removed at a small expense to the

River Parkway, Section C. 1903

department. To avoid this the coming season the slope can be raised with gravel. This work can be done at extreme low tides at a small expense.

While working on the contract for filling Section C there was found a surplus amount of silt, and the department furnished a dumping place for the same near River Street. Some of this material was placed back of the Bradford Boat Club House, between Brookline Street and the dyke.

At the bath house a police officer and the usual number of attendants were employed. A check system was installed, which proved very satisfactory and improved the method of handling large crowds of bathers. The entire force of attendants were on duty each day, from June 16 to September 24, between the hours of 9 A. M. and 10 P. M., with the exception of four hours at low tide.

The total receipts from suits, towels and lockers amounted to $1,134.71, and the estimated number of bathers was 40,880. The laundering has been done by a local laundry at a cost of ninety cents per hundred pieces. It has become still more apparent the past season that the proposed new bath house with laundry should be built at once. It was with great effort and overwork on the part of the attendants that suits and towels were furnished at times, as the proprietor of the laundry would not allow his help to work on Sunday. Additional dressing rooms are also needed.

The beach is fairly well sheltered and is exceedingly popular with the residents, young and old.

In the emergency room which was fitted up under the direction of Dr. John E. Dwyer, twenty-one cases were successfully treated, and we consider this room an important addition to the equipments of the bath house.

Three water carnivals were held during the season at the beach and races and exhibitions took place, as follows: 50, 100 and 440 yard races for men; 50 and 100 yard races for boys and girls; tub races, water baseball, etc. Silver cups, which were paid for by public subscription, were given as prizes. The races were a great success and were enjoyed by many.

SECTION E.

(Area 1.77 acres.)

Section E extends from the north line of River Street to south line of Western Avenue.

No construction work has been done here during the year.

The guard fences at the River Street bridge have been repaired.

SECTION F.

(Area 13.89 acres.)

Section F extends from the north line of Western Avenue to the east line of Boylston Street.

The work on this section during the summer was caring for the Charles River Road, walks, planted spaces, grass plots, trees and shrubs.

Between Boylston and DeWolf Streets there has been a gradual settling, making it necessary to regrade at this point as soon as possible. The uncompleted walks on this section require top-surfacing because of the large amount of travel to and from Soldier's Field.

The trees which were last planted present an unattractive appearance owing to their slow growth.

It would be well in the early spring to use the remaining material in the two wharves on this section, in constructing the proposed beach.

The beach just east of the boat house will have to be graded, and gravel should be furnished for surfacing the beach easterly from the present work.

The planting space at the top of the slope should be graded and planted and considerable loam will be required for the same.

With the exception of a stretch of flats about 300 feet in length opposite Sands Street, the fill is now continuous between Flagg Street and Western Avenue. It is expected that the ashes received during the coming winter will go a long way towards bringing the same to sub-grade, making a continuous drive to Western Avenue.

About 2,401 loads of material, consisting of ashes, street scrapings, excavations from cellars, etc., have been received at a cost of $323.98; also about 2,418 cubic yards of filling at a cost of $514.86.

Eleven Welsbach lights have been maintained here during the year and more lights are needed.

Four men have been employed here during most of the season taking care of this section.

In the early fall a contract was awarded to John C. McGirr for shingling and repairing the Weld Boat House, and was satisfactorily completed at a cost of $790.00.

Opposite the West End Power Station there is a large exhaust pipe which terminates on the beach. Owing to the weight of gravel forming the slope of the beach, this pipe has broken on two occasions, carrying with it large quantities of gravel into the river. At times also there is considerable oil coming from this pipe causing a great deal of annoyance to the bathers at Section D.

As usual the catch basins have been cleaned and are in good order for the winter season.

SECTION G.

(Area 16.07 acres.)

Section G extends from the west line of Boylston Street to the east line of the land of the Stillman Infirmary.

The work done on Section G was caring for the Charles River Road, walks, planted spaces, grass plots, trees and shrubs.

The walks on this section require surfacing.

The grass plot near the Lowell Willows and the ribbon strips between Bath and Boylston Streets have settled considerably and require attention.

The curbing between Murray and Boylston Streets should be removed.

Twenty-six Welsbach lights have been maintained here.

Four men have been employed most of the season.

The iron fences at the top of the beach west of Boylston Street and along Mt. Auburn Street should be repaired and painted.

The beach between the Stillman Infirmary and the Gas Wharf needs immediate attention as the current at this point has carried the gravel out into the river. It would have been well when this part of the beach was built if the foot of the slope had been secured, thereby saving the department the necessity of purchasing gravel at a great expense from time to time.

It would be advisable to put tide gates on the surface drains that lead the surface water to the river. At the present time considerable work is being done on the paved beach. During the early part of the season 196 loads of gravel were furnished at a cost of $98.00; this gravel was used for regrading the top of the beach.

The catch basins are in good condition for the winter season.

SECTION H.

(Area 1.44 acres.)

Section H extends from the east line of the land of the Stillman Infirmary to the Metropolitan Park taking at Gerry's Landing.

During the season the trees and grass have been cared for as usual and the section is in very good condition.

The walk needs to be regraded with some binding material as its present uneven condition obliges pedestrians to walk on the grass.

CAMBRIDGE FIELD.

(Area 12.64 acres.)

Three men were employed here a part of the season caring for the lawns, walks and shrubbery.

This useful field still continues to draw a larger number of people each year, both in winter and summer. In the summer season, and especially on Saturdays and holidays the grounds are crowded for the purpose of witnessing the base-ball, cricket and track games. The increasing demand for seats can be heard at all of these games and it is to be hoped that sufficient appropriation will be made to permit the building of bleachers on the field in order that the people who witness the games can do so with comfort instead of standing for hours in the broiling sun.

In the winter months about four acres are flooded and during the skating season, men, women and children come from every direction to enjoy the skating.

The running track has been used considerably during the season and should be given a little attention.

The paths outside of the running track and in front of the band stand should be regraded. All the macadam walks on the field should be surfaced with stone dust and rolled.

The shrubbery on the sides and especially the part facing York Street is in a very poor condition. The trees are in a fair condition and have added some shade to the field. They should be trimmed in the spring. As was recommended last year, the electric light wires should be placed under ground as they interfere with the tops of the trees.

Some regrading of the loam spaces is necessary.

The play field is in a poor condition and it would be well to top dress it with loam, thereby giving an inviting surface that would take care of itself.

Some repairs are needed in the plumbing of the Shelter and in the drains from the field.

During the year seven arc lights have been maintained and more are required here during the skating season as crowds of people on entering and leaving the field at night, trample over the planted spaces and break down the shrubbery on account of the poorly lighted conditions of the field.

A contract was awarded to Herbert L. Rose for installing shower baths and lockers in the basement of the Shelter and the work has been completed at a cost of $2,464.46.

Some sort of a permanent protection should be placed over the sand courts.

Numerous requests for band concerts have been made, and notwithstanding the fact that we have one of the best band stands in the City, there were no band concerts given here last season on account of lack of funds.

RINDGE FIELD AND NURSERY.

(Area 11.52 acres.)

During the fall construction work composed of grading and making a play field has been nearly completed. This field will be used for games in the summer and skating in the winter. Some alterations were made in the original plan in order to make a larger play field and to do away with the purchase of filling. It is desirous, the coming year, to complete the rest of the plan as accepted, as this is a long felt want of the people of this section.

Plans and specifications were made for a Sanitary Building which it was deemed inexpedient to build the present season, but it is hoped that the same, together with a Shelter, can be constructed the coming year.

Preparations for the planting of trees and shrubbery are now under way.

One man has been constantly employed caring for the Nursery and the lawns at the Sleeper School.

The trees and shrubs in the Nursery are in a fair condition. Some of the trees, the oaks in particular, will soon be too large to transplant successfully. It would be advisable to transplant them to Cambridge Field the coming season as there is ample space there for them.

EAST CAMBRIDGE EMBANKMENT.

(Area 8.35 acres.)

No construction work has been performed here this year.

Considerable filling has been received here without expense to the City.

Ballast should be placed back of the sea wall to protect it and allow the work of filling to continue.

COMMONS, SQUARES AND PUBLIC GROUNDS.

The usual attention has been given to the care of the different commons and squares and to the public grounds in charge of the department.

As was advocated last year, the relocation of walks and planting at the Public Library should be completed. There also remains a small amount of grading and planting to be done on the Ellery Street side of the Latin School grounds.

The grounds of the new Kelley School on Willow Street were graded and sodded at the expense of the Public Building Department; 152.74

cubic yards of loam were used at a cost of $137.47, and 400 square feet of sod, at a cost of $10.00.

The usual attention has been given to the care of Cambridge Common, such as cutting the grass and taking care of shrubs and walks. The grass plots should be regraded with loam as the surface water stands in several places. The fence surrounding the Common has been repaired and the iron fence around the Soldiers' Monument has been repaired and painted. The cannon have also been painted. Two men have been employed on the Cambridge Common almost constantly.

Broadway Common continues to attract large numbers of women and children. During the early part of the season an entrance was made on the Broadway side of the Common opposite Tremont Street, and a new cross walk constructed. As the larger portion of the walks are composed of brick, it would be well to have the new walks conform with the others. Numerous complaints have been made to the department that children destroy the shrubbery and tear down the wire guards. It would be well if one man were stationed here all the time to see that this destruction is stopped.

The iron fence surrounding Broadway Common has been repaired and painted and the flag pole should be repaired and painted as soon as possible.

WASHINGTON ELM.

The usual care has been taken of this Revolutionary landmark.

The foliage was very full and heathful the past summer, new wood is making and the small roots and fibres have filled the loam through its entire extent.

The turf has been renewed and the old wounds on the tree have been cared for.

The tree is in a fair state of preservation.

FORT WASHINGTON.

This old historic fort with its three-gun battery and flag staff has been put in proper condition. "Let no unpatriotic hand destroy it."

The first of the season work was begun on the fort and consisted of grading grass plots with loam and building walks and planting shrubbery as per plan. The moat which was partially filled, was excavated and the breast works which were ragged and unsightly, were shaped up with loam and filling.

The iron fence surrounding the fort was repaired.

Fort Washington. 1903

The guns and gun carriages which were tilted at all angles, were straightened up, mounted and repaired.

The guns and gun carriages and the iron fence surrounding the fort should be painted the coming year.

Hannah Winthrop Chapter, D. A. R., of this City, held a very interesting meeting on Monday, October 19, at which time the ceremony of presenting a flag to the City of Cambridge to float over Fort Washington took place, and an American flag was unfurled to the breeze from the top of the old historic flag staff which has stood on the ground for nearly a century.

Fort Washington is the only Revolutionary fort or battery remaining in Cambridge. It was built by order of General Washington in the year 1775, and was called a three-gun battery. In the year 1857, three citizens who owned this land gave it to the City on condition that when it was enclosed and improved by the City it should remain forever an open spot for light and air, and for the accommodation of the general public.

In 1858, the City and State each expended $2,000, putting the fort in good condition and enclosing it with an iron fence, the State giving what it did only on condition that the fence should be kept in good condition.

SHADE TREES.

In December work was begun clearing the trees of the nests of the brown-tail, gypsy and tussock moths. Expert climbers were employed and the trees were given a systematic cleaning. The brown-tail nests were cut from the trees and burned, while the gypsy and tussock nests were treated with a creosote paint. By this method the department has succeeded in reducing the number of the nests of the brown-tail moth quite perceptibly and it is hoped by following the same process another season to very nearly if not quite exterminate them. In treating the gypsy moth nests we have not been as successful, due partially to the form of the nests, it being almost impossible to see them on the limbs of large trees; and partially to the fact that the land owners in the sections where the gypsy moth is found, have not co-operated with the City in cleaning their trees. It is hoped the coming winter to have an appropriation large enough that every tree in the City may be thoroughly cleaned.

Nothing was done during the season towards destroying the elm-leaf beetle but as this pest is spreading very rapidly, I would recommend that an apparatus be purchased and special war be waged upon it the coming year.

The work on the street trees accomplished this year is as follows: —

1,876 wire guards repaired.
577 trees trimmed.
154 new wire guards put on.
149 trees removed, as follows: —

Acer saccharum	52
Aesculus hippocastanum	19
Alnus glutinosa	1
Franinus Americana	4
Populus alba	1
Populus candicans	3
Salix vitellina	1
Tilia Americana	5
Ulmus Americana	62
Ulmus campestris	1

15 heads cut off.
14 stumps removed.
2 trees planted.

WHAT CAMBRIDGE NEEDS.

The City of Cambridge needs a municipal bath run like the Brookline Public Baths which are a paying investment. Brookline is now well known for its fine swimming pool and in every amateur swimming meet the Brookline Swimming Club is always well represented.

The benefits derived from a bath like this in the City of Cambridge would be without number. There are good swimmers in Cambridge but in winter they have no place to practise, although many Cambridge people now have commutation tickets for the Brookline swimming pool.

The apathy that has existed in Cambridge in recent years in regard to the development of public gymnasia and play grounds, should, in the opinion of many, give way to some definite action. With the excellent sites and natural advantages afforded us, no legitimate reasons can be advanced for further disregard in this matter. While it may be admitted that some improvements have been made in this department, they are by no means commensurate with the needs of the people and the importance of the City. Cambridge with a population of 96,000, can at least support one public gymnasium and a play ground in a community where it is a public necessity.

What is needed is a gymnasium where the youths of the City, under proper direction, can be afforded every facility for the building up of their physical natures, and the storing up of sufficient strength and energy for their well-being.

The manifold advantages of such institutions in a city are so manifest that it occasions surprise that the City Government has not taken some means to provide for their introduction before this.

Statistics show that the annual influx of country born and bred into a city, alone preserves its growth and development, and arrests the retrograding tendencies of city life. From this it is evident that the only way to obviate these baneful influences as far as possible, is to afford the people those means which best serve to preserve their stamina.

Crowded communities now exist on former sites of fields and pastures and it is due the dwellers in these congested districts to provide them with public places of recreation and helpful out door life that is now denied them. In this respect, Cambridge would do well to emulate the example of her sister city across the Charles, which now ranks foremost among the cities of the world. Public gymnasia and play grounds have been established in almost every community, and competent instructors are employed the year round to direct and supervise the proper exercising of its patrons. The wisdom of this course is only too well established, and Boston's example has been followed to some extent at least in almost every large city in the country. Despite the fact that all this has been going on under our very eyes all these years, and their good results have been so often attested, yet Cambridge still remains in its lethargic attitude.

In many instances, cities with a population of equal or less proportions have a system of public play grounds and gymnasia, and Cambridge can certainly afford to provide the same. It would be nothing experimental, and would be fully appreciated, for their success and necessity have long since been established.

We have an excellent site for the construction of a gymnasium on the play ground at Cambridge Field, where a running track has already been made, baths and lockers installed, and there is plenty of area inside the track for the erection of suitable apparatus. To complete the project, the City Council should appropriate a sufficient amount and give the City at least one complete public gymnasium.

The dilatory methods that have characterized the citizens of Cambridge in the past, should now give way to more concrete action. Let us do what ought to have been done and there will be no further grounds for complaint. If this question should be put to popular vote, there is no doubt but that it would be accepted almost unanimously. There is then only one conclusion, — give the people what they need and what they want, what every progressive city in the country has already, or is in the act of giving, public gymnasia and play grounds.

THE YEAR'S EXPENDITURES.

The expenses of the department for the year are shown in the following summary of the departmental accounts :—

PARK LOANS.

(Lands and Construction.)

Amount of unused balance of 1902 appropriation reappropriated December 17, 1902		$793 95
Amount appropriated January 29, 1903		10,000 00
Amount appropriated March 11, 1903		40,000 00
Amount appropriated November 12, 1903		7,500 00
		$58,293 95

EXPENDED.

River Parkway, Section A.			
Land damages	$7,500 00		
Engineering	25 88		
		$7,525 88	
River Parkway, Section B.			
Pay roll	$2,173 30		
Street watering	462 05		
Cleaning and painting fence	220 00		
Edgestone	51 98		
Paint	36 20		
Hardware	9 87		
Hose and reducer	8 63		
Blacksmithing	8 25		
Water works	3 75		
Engineering	2 63		
Express	1 50		
		$2,978 16	
River Parkway, Section C.			
Gravel	$18,007 26		
Services of lawyer in case of Norcross *vs.* City	3,000 00		
Engineering	897 90		
Cinders	702 52		
Pay roll	407 95		
Filling	182 46		
Loam	86 61		
Stakes for engineers	32 75		
New lock on gate at crossing	10 51		
Hardware	2 87		
Oars	1 69		
Stove pipe	1 21		
Telegram	35		
		$23,334 08	
River Parkway, Section D.			
Pay roll	$1,651 66		
Engineering	275 25		
Hardware	1 97		
Turning water off and on	1 00		
		$1,929 88	
Amounts carried forward		$35,768 00	$58,293 95

Amounts brought forward		$35,768 00	$58,293 95
River Parkway, Section E.			
Engineering	$5 25	$5 25	
River Parkway, Section F.			
Pay roll	$2,012 57		
Land damages	1,058 57		
Removing stone and piles	1,002 04		
Shingling and repairing Weld Boat House	790 00		
Filling	643 36		
Teaming	466 40		
Engineering	253 12		
Ashes	44 50		
Blacksmithing	14 30		
Advertising and printing	2 93		
Recording deed	69		
		$6,288 48	
River Parkway, Section G.			
Gravel	$98 00		
Pay roll	43 20		
		$141 20	
Fort Washington.			
Pay roll	$496 20		
Sod	200 33		
Repairing fence	108 00		
Teaming	26 69		
Engineering	25 87		
Paint	18 39		
Watering system	17 60		
Chipped stone	14 00		
Making cannon axles	10 60		
Ashes	8 69		
Lumber	3 42		
		$929 79	
Rindge Field.			
Pay roll	$915 65		
Engineering	7 88		
Advertising	2 97		
Faucet	1 50		
		$928 00	
Nursery			
Pay roll	$616 00		
Coal	2 13		
		$618 13	
Broadway Park.			
Pay roll	$196 33		
Teaming	35 00		
Ashes	27 85		
Grass seed	21 32		
Gravel	20 40		
Paint	18 39		
Twisted wire	5 28		
Sod	1 70		
Express	35		
		$326 62	
Amounts carried forward		$45,005 47	$58,293 95

Amounts brought forward		$45,005 47	$58,293 95
Cambridge Field.			
Services of architect	$125 00		
Masonry	100 97		
Engineering	23 62		
Advertising	2 97		
		$252 56	
General Account.			
General Superintendent's salary	$1,042 31		
Acting General Superintendent's salary	360 00		
Repairs and alterations at stable	270 56		
Hay, grain and straw	131 20		
Difference in horse trade	125 00		
Car tickets for office	100 00		
Printing and binding reports of 1902	87 52		
Heliotype cuts for report of 1902	87 50		
Car tickets for engineers	75 00		
Tools and hardware	68 04		
Pay roll	57 35		
Board of horse	45 75		
Repairing workmen's shanty	41 74		
Rent of storeroom	40 00		
Shoeing horse	39 25		
Grass seed	21 32		
Printing and stock	17 75		
Miscellaneous supplies for stable	13 20		
Water rates, stable	11 50		
Binding reports for Commissioners	10 75		
Repairing horse roller	10 35		
Dies for report of 1902	10 00		
Sharpening picks	7 80		
Coal	6 75		
Paint for watering cart	6 50		
Repairing harness	5 80		
Envelopes for report	4 00		
Clipping horse	3 00		
Repairing carriage	2 50		
Cover for watering cart	2 50		
Express	35		
		$2,705 29	
Office Expenses.			
Pay roll	$780 00		
Stationery and printing	116 01		
Telephone service	115 28		
Postage stamps	30 35		
Blank books to order	27 90		
Stamp for Superintendent	4 05		
Cambridge Directory	3 50		
Opening and repairing desk, and making keys	3 45		
Window boxes	3 00		
Repairing gate lock	70		
Hardware	25		
Express	15		
		$1,084 64	
Total			$49,047 96
Balance unexpended			$9,245 99

PARK LOANS.

(Lands and Construction.)

Improvements at Rindge Field.

Amount appropriated June 24, 1903		$3,000 00
EXPENDED.		
Pay roll	$2,881 58	
Apparatus for playground	65 00	
Tools and hardware	40 82	
Engineering	9 37	
Advertising	2 32	
Total		$2,999 09
Balance unexpended		$0 91

PARK LOANS.

(Lands and Construction.)

Baths and Lockers.

Amount appropriated June 24, 1903		$2,500 00
EXPENDED.		
Installing baths and lockers in Cambridge Field Shelter	$2,464 46	
Changing service for lighting	27 54	
Pay roll	8 00	
Total		$2,500 00

PARK MAINTENANCE.

Commons, Squares and Public Grounds.

Amount appropriated March 11, 1903		$5,000 00
EXPENDED.		
Pay roll	$3,936 00	
Lighting	360 00	
Cleaning, repairing and painting iron fences	275 87	
Assorted plants	75 00	
Repairing flag pole and sending up two topmasts	73 00	
Teaming	63 25	
Bulbs	53 85	
Tools and hardware	23 13	
Stakes for engineers	22 50	
Lumber	15 51	
Back stop, Cambridge Common	15 15	
Coal	14 24	
Lawn mower fixings	13 76	
Housing two topmasts	11 33	
Sod	10 00	
Rope for halyards	9 00	
Screened stone	7 45	
Amounts carried forward	$4,979 04	$5,000 00

Amounts brought forward	$4,979 04	$5,000 00
Repairing flags	5 80	
Express	4 40	
Repairing rubbish barrels	3 48	
Printing	2 00	
Blacksmithing	1 50	
Loam	94	
Total		$4,997 16
Balance unexpended		$2 84

Shade Trees.

Amount appropriated March 11, 1903	$5,000 00

EXPENDED.

Pay roll	$4,588 43	
Repairs at stable	253 50	
Teaming	36 25	
Lumber	25 15	
Sharpening saws	22 95	
Tools and hardware	15 88	
Miscellaneous supplies for stable	5 25	
Kerosene oil	1 30	
Express	90	
Repairing damage caused by trees	20	
Total		$4,949 81
Balance unexpended		$50 19

Cambridge Field and Shelter.

Amount appropriated March 11, 1903	$4,500 00

EXPENDED.

Pay roll	$3,652 84	
Lighting	754 70	
Telephone service	23 90	
Toilet paper	18 00	
Miscellaneous supplies	12 13	
Fixing halyards	10 00	
Laundering towels	8 56	
Teaming	7 81	
Repairing furnace	4 30	
Repairing clock	3 00	
Water Works	2 50	
Plumbing	1 30	
Express	75	
Total		$4,499 79
Balance unexpended		$0 21

Brown Tail Moth Extermination.

Amount appropriated January 8, 1903	$2,500 00
Amount appropriated February 28, 1903	1,000 00
Amount of revenue received during year and appropriated by order of March 26, 1903	250 03
Amount carried forward	$3,750 03

Amount brought forward		$3,750 03
EXPENDED.		
Pay roll	$3,443 72	
Teaming	43 88	
Ladders	40 50	
Use of horse, wagon and tools	32 72	
Printing	32 25	
Tools and hardware	32 16	
Repairing tools	7 60	
Creosote	3 75	
Express	1 80	
Repairing wagon top	75	
Total		$3,639 13
Balance unexpended		$110 90

Sections G and H.

Amount appropriated March 11, 1903		$3,300 00
EXPENDED.		
Pay roll	$2,342 67	
Lighting	836 26	
Tools	58 91	
Stakes	34 00	
Engineering	9 00	
Total		$3,280 84
Balance unexpended		$19 16

Sections A, B, D, F and Rindge Field.

Amount appropriated March 11, 1903		$2,500 00
Amount appropriated June 24, 1903		500 00
		$3,000 00
EXPENDED.		
Section A.		
Lighting	$231 76	
Section B.		
Lighting	848 50	
Section D.		
Lighting	720 14	
Section F.		
Lighting	345 03	
Rindge Field.		
Pay roll	$564 03	
Lighting	263 12	
Coal	6 75	
	833 90	
Total		$2,979 33
Balance unexpended		$20 67

Bath House.

Amount appropriated March 11, 1903		$2,200 00
EXPENDED.		
Pay roll	$1,691 96	
Lighting	185 79	
Laundering suits and towels	80 47	
Carpentering	69 30	
Miscellaneous supplies	51 58	
Lumber	34 94	
Printing	26 05	
Towels	17 64	
Clothes wringer	8 82	
Emergency supplies	6 58	
Telephone service	6 18	
Hardware	5 51	
Stockings	2 30	
Repairing flag	2 00	
Repairing lock and making keys	1 50	
Canvas	1 38	
Stamp and pad	95	
Blacksmithing	75	
Express	25	
Total		$2,193 95
Balance unexpended		$6 05

General Account.

Amount appropriated March 11, 1903		$550 00
EXPENDED.		
Rent of stable	$180 00	
Hay, grain and straw	126 98	
Board of horse and use of room	45 00	
Repairing wagon	44 22	
Tools and hardware	34 41	
Lumber	24 38	
Repairing harnesses	19 30	
Pay roll	17 69	
Engineering	16 50	
Shoeing horse	16 50	
Paint and brushes	8 30	
Posting "Rules and Regulations"	6 80	
Repairing bicycles	4 50	
Kerosene oil	2 05	
Turning water off and on	1 00	
Repairing stable blanket	50	
Total		$548 13
Balance unexpended		$1 87

Fort Washington.

Amount appropriated March 11, 1903	$500 00
Amount transferred to Contingent Fund October 17, 1903	500 00

Respectfully submitted,

JAMES A. MONTGOMERY,

General Superintendent of Parks.

REPORT OF THE CITY ENGINEER

OFFICE OF THE CITY ENGINEER,
CITY HALL, CAMBRIDGE.

Mr. Andrew J. Conlin, Chairman Cambridge Park Commission:—

DEAR SIR,—In compliance with your request, I submit the following report of work done in the Park Department during the financial year of 1903 with which this office has been connected.

The contract with Mr. W. B. Mullen to deliver and spread 50,000 cubic yards, more or less, of gravel filling on Section C of the River Parkway was signed June 11, 1903. Under arrangement with Mr. Mullen the Bay State Dredging Company has delivered at Section C on November 30, 1903, 39,354.3 cubic yards of a very good quality of gravel. The material was taken from the new channel being dug in connection with the Cambridge Bridge.

This gravel underlies a covering of mud which in the course of the work was first removed and a large part of it dumped on Park lands on the Cambridge side of the river; 5,570.6 cubic yards on Section D in the cove near River Street; 5,123 cubic yards on Section C between Brookline Street and the Boston & Albany Railroad, and 12,081 cubic yards on Section C outside of the bulkhead.

The gravel has been spread to a level grade which will, it is expected, allow shaping to sub-grade without waste or excess. The material already delivered has been sufficient to carry the work the full width of the Park within about 850 feet of the railroad and for the remainder of the way wide enough to allow the building of a driveway to the railroad.

Acting under directions from your Board the grade of the play-field at Rindge Field was altered to allow of the grading of this part of the general scheme for improvement to be carried forward without the necessity of purchasing any filling and also to obtain a larger unobstructed play-field. The grade fixed has provided an excess of material which has been used in filling the low part of the field along Yerxa Road.

Fort Washington has been renovated by rebuilding the moat and rampart, constructing walks, setting up old cannon and planting some shrubs in accordance with plans prepared in this office.

A plan was prepared for the installation of baths in the basement of the Shelter at Cambridge Field which called for six baths, four dressing rooms and seventy-eight lockers. This work was carried out substantially as shown upon this plan.

A new entrance and necessary walk was laid out and built at Broadway Common to accommodate the people wishing to cross the Park from Tremont Street.

For the Park Department, this office has during the year made ten surveys, given fifty grades, made twenty plans, given twenty lines and set three stone bounds. These bounds were set on the park-line between Boylston and Holyoke Street. Considerable work has been done toward the completion of the plans of the various sections of the River Parkway. The work for the Park Department this year has been under the direction of Mr. F. E. Everett.

Respectfully submitted,

J. W. PIERCE,
City Engineer.

REPORT OF THE SOLDIERS' AID DEPARTMENT

To the Honorable, the City Council:—

GENTLEMEN:—I respectfully submit the annual report of this department for the financial year commencing December 1, 1902, and ending November 30, 1903.

In accordance with an order of the Board of Aldermen, under date of February 3, 1903, the office of the Soldiers' Aid was consolidated with that of the Clerk of Committee, and I was selected to take charge of the same to fill the vacancy caused by the retirement of Mr. Charles L. Russell.

Upon assuming the duties I found that a great deal of care was necessary, in order to guard against giving undeserved aid, as well as to impress upon all applicants, that notwithstanding the office of Agent was filled by a veteran, the same care would be exercised in protecting the interests of the City and State, as in previous years.

Although the law is very explicit, still before the aid is given, it is necessary that each case should be investigated, in order that the Agent may keep in touch with the beneficiary. It is also required, that those receiving aid should be visited from time to time, which duty as far as possible has been performed, especially when it was thought that undue advantage was being taken. It is hoped that some arrangement may be made in the future so that those unable to come to the office, may be visited, at least once a year.

The work of this department is all performed in accordance with Chapter 79 of the Revised Laws of this Commonwealth of the year 1902, which includes in its enactments the provisions of Section 3, State Aid; Section 9, Military Aid, and Section 18, Soldiers' Relief. Spanish as well as Civil War veterans are included under this law, and the disbursements are allowed as follows:—

Aid given by cities and towns under Section 3, is repaid by the State. Under Section 9 the State pays one-half and the city or town the other one-half, but under Section 18 the full amount is met by the city or town disbursing the same. All amounts paid by cities and towns for State and Military Aid are reimbursed by the State on the tenth day of December of the following year. Section 20 of this Chapter also provides

for the burial of indigent soldiers and sailors, and the widows of both Civil and Spanish War veterans, and a burial agent, (appointed by the Mayor) performs this duty, but without compensation.

Upon assuming the office it was found that the whole number of beneficiaries receiving aid was as follows: —

State Aid	266	
State Aid (Spanish War)	2	
Military Aid	5	
Soldiers' Relief	166	
Total		439

On November 30, 1903: —

State Aid	262	
State Aid (Spanish War)	1	
Military Aid	5	
Soldiers' Relief	126	
Total		394
Decrease		45
Died during the year	21	
Left the City	24	
		45

The total disbursements during the year are as follows: —

Pay-rolls — State Aid	$13,292	50
Pay-rolls — Military Aid	672	00
Pay-rolls — Soldiers' Relief	7,701	00
Other expenses including deaths, etc.	3,327	80
Total disbursements	$24,993	30

To the Committee on Soldiers' Aid I extend my sincere thanks for the patience they have shown me in this position. Many do not realize the full extent of the duties, and I felt very reluctant at first in accepting the position, but as there were members of the Committee who were conversant with the work, I assumed it and have been greatly aided by them.

Many reforms could be introduced in the disbursement of aid, but in order to do so it would be necessary for a person to give his whole time to the office, in order that the interests of the City can be properly administered.

Respectfully submitted,

EBEN W. PIKE,

Clerk and Agent, Soldiers' Aid.

ANNUAL REPORT OF THE CITY AUDITOR

City Auditor's Office,
Cambridge, December 1, 1903.

To the Honorable, the City Council:—

The undersigned herewith presents the annual statement of the receipts and disbursements of the City of Cambridge for the fiscal year beginning on the first day of December, 1902, and ending on the thirtieth day of November, 1903.

The first part of this report is devoted to an exhibit of the receipts and expenditures of the City arranged upon the Schedules for Uniform Municipal Accounting recommended by the National Municipal League. Following these schedules are the usual matters presented in the City Auditor's report including a schedule of the City property.

Respectfully submitted,

HARRY T. UPHAM,
City Auditor.

REPORT OF CITY AUDITOR

For Year Ending November 30, 1903.

SCHEDUDE A–I.

Receipts and Disbursements of the Fiscal Year.

CONSOLIDATED STATEMENT.

Cash balance at beginning of the year		$199,969 48
Actual Receipts* during the year	$2,796,672 69	
Actual Disbursements* during the year	2,904,513 20	
Excess of Disbursements		107,840 51
Cash Balance at end of the year		$92,128 97

This balance includes the following balances of special funds and accounts:—

Cambridge Bridge	$1,969 22	
Land for Engine House	185 00	
Land for Hospital	6,500 00	
Land Damages	5,038 45	
Park Construction and Lands	9,245 99	
Public Library Addition	371 79	
Washington Schoolhouse	4,418 55	
Kelley Schoolhouse (Willow Street)	984 47	
Fletcher Schoolhouse (Elm Street)	48,974 65	
Improved Sewerage	27 11	
Street Construction	1,360 46	
Water Works, Construction	12,647 06	
		$91,722 75
Leaving a net balance of free cash in treasury		$406 22

* Omitting duplications, which are set up separately in Schedules A–II. and A–VI.

SCHEDULE A–II.

General Exhibit of Receipts and Expenditures of the Fiscal Year.

Separated under the four heads, "Ordinary," "Extraordinary," "Trust Funds," and "Temporary Accounts."

	Receipts.	Expenditures.
Ordinary. (Operation and maintenance)..... (For details see Schedule A–III.)	$2,336,172 85	$2,414,459 86
Extraordinary. (Construction, &c.)..... (For details see Schedule A–III.)	457,916 32	487,469 82
Trust Funds..... (For details see Schedule A–V.)	2,583 52	2,583 52
Total Actual Cash Transactions of the Year. (Omitting duplications)..... (Per Schedule A–I)	$2,796,672 69	$2,904,513 20
Temporary Accounts. (Duplications)..... (For details see Schedule A–VI.)	856,000 00	856,000 00
Total transactions, per City Auditor's books.....	$3,652,672 69	$3,760,513 20

Ordinary has relation only to the current revenues and "running expenses" (operation and maintenance), and does not include receipts or payments on account of loans, nor on account of permanent construction or other capital accounts.

Extraordinary has no relation to current revenue or running expenses, but does include receipts and payments on account of loans, and for permanent construction and other capital accounts.

Trust Funds include all receipts and payments of the City when acting as trustee or as agent for funds, trusts, special deposits, etc., which cannot be used except for particular and specified purposes.

Temporary Accounts include all receipts and payments of the City which are simply journal items, duplications, or items paid in, temporarily held and paid out again, and must give the same figures for both receipts and expenditures.

ACTUAL FINANCIAL RESULT OF THE OPERATION AND MAINTENANCE OF THE CITY FOR THE YEAR.

Ordinary Receipts, as above, from taxation and other sources, not including money borrowed.....	$2,336,172 85
Ordinary Expenditures, as above, for operation and maintenance (running expenses).....	2,414,459 86
Excess of Ordinary Expenditures for the year.....	$78,287 01

(Excess of Extraordinary Expenditures, $29,553.50 additional.)

SCHEDULE A–III.

Exhibit of Receipts and Expenditures for the Year, Ordinary and Extraordinary, Grouped According to Functions.

ORDINARY.*

	Receipts.	Expenditures.
General Government	$9,804 34	$95,194 46
Protection of Life, Health and Property	20,582 75	305,647 13
Public Charity and Correction	22,793 57	93,929 85
Public Ways and Wastes	16,468 83	425,504 51
Public Industries and Investments	346,828 58	71,215 02
Public Education	9,708 31	479,755 45
Public Art and Recreation	3,546 86	64,975 07
Public Indebtedness. (Transactions during the year)	5,508 00	279,656 20
Public Interest	12,122 02	356,396 13
Public Taxation	1,872,420 21	242,186 04
Special Assessments. (Street Betterments, etc)	16,359 96	.....
Unclassified	29 42	.....
Total of Ordinary (per Schedule A–II.)	$2,336,172 85	$2,414,459 86

EXTRAORDINARY.*

	Receipts.	Expenditures.
General Government	.....	.....
Protection of Life, Health and Property	$6,268 02	$2,815 00
Public Charity and Correction	.....	.....
Public Ways and Wastes	15,150 00	292,623 20
Public Industries and Investments	5,727 85	26,353 55
Public Education	20,110 00	111,131 02
Public Art and Recreation	.....	54,547 05
Public Indebtedness. (Transactions during the year)	390,000 00	.....
Public Interest	.....	.....
Public Taxation	.....	.....
Special Assessments. (Street Betterments, etc.)	14,660 45	.....
Unclassified	6,000 00	.....
Total of Extraordinary (per Schedule A–II.)	$457,916 32	$487,469 82

*For details see Schedule A–IV.

SCHEDULE A–IV.

EXHIBIT OF RECEIPTS, APPROPRIATIONS AND EXPENDITURES, DIVIDED INTO ORDINARY AND EXTRAORDINARY, AND ARRANGED BY DEPARTMENTS AND DIVISIONS, WHICH ARE GROUPED ACCORDING TO THEIR FUNCTIONS AS IN THE PRECEDING SCHEDULE.

1. GENERAL GOVERNMENT.

	Receipts.*		Appropriations.	Expenditures.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
1.1 Mayor's Department			$5,900 00	$5,740 92	
1.2 Councils:					
City Messenger's Department			1,575 00	1,644 24	
Clerk of Committees			3,650 00	3,657 87	
City Council's Expenses			Contingent	5,385 81	
City Clerk's Department	$2,662 34		7,600 00	7 594 68	
	$2,662 34			$18,282 60	
1.3 Law Department	500 00		$5,000 00	$4,995 00	
1.4 Finance:					
Auditor's Department			4,050 00	4,046 72	
Assessing Department	1 50		13,000 00	13,983 51	
Treasurer's (and Collector)	2,401 03		14,500 00	14,943 23	
Sinking Fund Officials			Contingent	405 00	
	$2,402 53			$33,378 46	
1.5 Elections:					
Election Dept., City Clerk			6,000 00	6,380 19	
" Registrars of Voters			3,600 00	3,895 05	
" Sup't B'ld'gs			1,700 00	1,699 68	
Notifying Voters			Contingent	41 87	
				$12,016 79	
1.6 City Hall:					
City Buildings Account	3,152 16		16,000 00	15,725 58	
1.7 Miscellaneous:					
Postage and Stat'ry, Messenger	1,059 31		1,200 00	1,085 11	
Paige's History	15 00				
Proprietor's Records	13 00				
Gray Hearing			Contingent	3,970 00	
	$1,087 31			$5,055 11	
Total General Government	$9,804 34			$95,194 46	

* These receipts have been entered in all the schedules under the department title in which they originate, although they are not placed to the credit of these departments, but are placed in the general treasury as income for general appropriations.

SCHEDULE A–IV. — *Continued.*

2. PROTECTION OF LIFE, HEALTH AND PROPERTY.

	Receipts.		Appropriations.	Expenditures.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
2.1 Police Department	$698 35		$133,200 00	$134,968 00	
2.2 Fire Department:					
Salaries and General Expenses.	190 50		94,500 00	94,521 98	
Land for Engine House			3,000 00		$2,815 00
2.2a Fire and Police Telegraph:					
Electrical Department — Wire Account	148 10		9,500 00	9,494 12	
2.3 Courts:					
Fines—Police Department	4,109 05				
2.4 Health Department:					
Salaries and General Expenses			18,800 00	20,510 27	
Small-pox Hospital			8,000 00	9,630 89	
Temporary Hospital			9,000 00	8,163 64	
Land for Hospital			6,500 00		
Commonwealth of Mass., etc.	2,869 20				
Inspector of Milk and Vinegar			1,680 00	1,599 85	
Inspector of Provisions, salaries, etc.			800 00	794 25	
	$2,869 20			$40,698 90	
2.5 Cemeteries and Crematories:					
Salaries and Labor			14,000 00	13,973 92	
General Expenses			2,000 00	2,599 20	
From Burials, etc	10,622 97				
Sales of Lands and Lots		6,268 02			
	$10,622 97	$6,268 02		$16,573 12	
2.6 Inspectors:					
Superintendent of Buildings			6,350 00	6,104 73	
Plumbers' Examiners Dept.			100 00	86 00	
Sealer of Weights and Measures	911 26		2,500 00	2,477 11	
	$911 26			$8,667 84	
2.7 Militia and Armories:					
Armory, Beech Street			100 00	97 58	
Rifle Range			250 00	326 73	
Car Tickets to and from Armories, etc.			Contingent	298 86	
Commonwealth of Mass.	1,033 32				
	$1,033 32			$723 17	
2.8 Miscellaneous:					
Total Protection Life, Health and Property	$20,582 75	$6,268 02		$305,647 13	$2,815 00

SCHEDULE A–IV. — *Continued.*

3. PUBLIC CHARITY AND CORRECTION.

	Receipts.		Appropriations.	Expenditures.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
3.1 Hospitals:					
3.2 Insane:					
Outside Aid—Care of Insane...	.....	.....	(Overseers of Poor)	$26,528 23	.....
3.3 Houses for Children, Aged, Deaf, Dumb, Blind, etc.:					
3.4 Almhouses:					
City Farm.....	$3,922 64	.....	$4,800 00	5,012 41	.....
City Home	1,185 64	.....	18,000 00	19,276 44	.....
	$5,108 28			$24,288 85	
3.5 Out-door Relief:					
Overseers of the Poor Department—Salaries.....	.....	.....	3,600 00	3,178 78	.....
Overseers of the Poor Department—General Expenses (less Care of Insane).....	2,476 29	.....	38,000 00	13,440 69	....
City Physician.....	.....	.....	1,500 00	1,500 00	.....
	$2,476 29			$18,119 47	
3.6 Lodging Houses:					
3.7 Prisons and Reformatories:					
3.8 Workhouses:					
3.9 Miscellaneous:					
State Aid — Soldiers' Relief....	15,209 00	.....	25,000 00	24,993 30	.....
Total Public Charity and Correction	$22,793 57			$93,929 85	

SCHEDULE A–IV. — *Continued.*

4. PUBLIC WAYS AND WASTES.

	Receipts.		Appropriations.	Expenditures.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
4.1 Administration:					
Engineering Department			$10,100 00	$9,844 41	
Salaries — Superintendent of Streets and office			4,000 00	4,100 00	
				$13,944 41	
4.2 Opening, Grading and Widening Streets:					
Land Damages		$15,150 00	35,000 00		$29,961 55
Street Construction			3,500 00		3,272 35
Board of Survey			100 00	96 50	
				$96 50	$33,233 90
4.3 Street Paving:					
Rebuilding streets	$450 11		15,000 00	14,317 30	
Maintenance	1,765 18		64,000 00	64,977 82	
	$2,215 29			$79,295 12	
4.4 Sidewalks:					
Paving — Edgestones and Sidewalks	247 07		30,000 00		29,998 82
Paving—Crossings and Repairs			10,000 00	10,000 00	
4.5 Street Lighting:					
Electrical Department — Street Lighting	5 00		76,500 00	75,176 66	
4.6 Street Cleaning:					
Street Cleaning Division (Less Snow Renowal)			35,000 00	29,069 88	
4.7 Snow Removal:					
Street Cleaning			(Street Cleaning)	5,925 75	
4.8 Street Sprinkling:					
Street Watering	1,361 77		29,000 00	27,902 12	
4.9 Refuse Collection and Disposal:					
Overseers of Poor—House Offal	10,359 99		27,000 00	30,848 01	
Collection of Ashes			29,000 00	28,797 78	
				$59,645 79	

SCHEDULE A–IV.—*Continued.*

4. PUBLIC WAYS AND WASTES.—Concluded.

	Receipts.		Appropriations.	Expenditures.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
4.10 Sewers and Sewage Disposal:					
Sewer Department — Construction	.....	.....	$7,500 00	.....	$27,156 29
Sewer Department — Improved Sewerage	.....	.....	46,848 24	.....	47,821 13
Sewer Department — Maintenance	$179 23	.....	18,000 00	$17,999 74	.....
Sewer Department — Permits	115 97	.....	.....	.....	.....
Metropolitan Sewer Tax	.....	.....	.....	79,836 65	.....
Dredging	1,585 60	.....	2,750 00	2,672 78	.....
	$1,880 80			$100,509 17	$74,977 42
4.11 Rivers, Harbors and Waterways:					
4.12 Bridges:					
Boston Bridges	398 91	.....	16,900 00	16,856 21	.....
Cambridge Bridge	.....	.....	156,098 32	.....	154,129 10
Harvard Bridge, Paving	.....	.....	289 29	.....	283 96
Bridges — Street Department	.....	.....	3,000 00	3,200 00	.....
				$20,056 21	$154,413 06
4.13 Miscellaneous:					
Damages to persons and personal property	.....	.....	Contingent	3,637 85	.....
Civil Service Department	.....	.....	250 00	245 05	.....
				$3,882 90	
Total Public Ways and Wastes	$16,468 83	$15,150 00		$425,504 51	$292,623 20

SCHEDULE A–IV. — *Continued.*

5. PUBLIC INDUSTRIES AND INVESTMENTS.

	Receipts.		Appropriations.	Expenditures.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
5.1 Water Works:					
Construction	.....	$5,727 85	$15,400 61	.....	*$26,353 55
Maintenance	.....	.....	315,738 00	$64,289 51	.....
Rates	$341,532 64	.....	.....	.....	.....
Miscellaneous	5,001 81	.....	.....	.....	.....
Refunds and Abatements	.....	.....	8,000 00	6,925 51	.....
	$346,534 45			$71,215 02	$26,353 55
5.2 Gas Works:					
5.3 Electric Light and Power Plants:					
5.4 Municipal Heating Plants:					
5.5 Municipal Street Railways:					
5.6 Transit Subways:					
5.7 Subways for Pipes and Wires:					
5.8 Markets:					
5.9 Docks and Wharves:					
5.10 City Real Estate:					
Rent of Land	229 13				
" Old Schoolhouse	65 00				
	$294 13				
5.11 Stocks, Bonds and Investments:					
2 Other Investments:					
5.13 Miscellaneous:					
otal Public Industries and Investments	$346,828 58	$5,727 85		$71,215 02	$26,353 55

*An Extraordinary expenditure from Ordinary income.

SCHEDULE A–IV.—*Continued.*

6. PUBLIC EDUCATION.

	Receipts.		Appropriations.	Expenditures.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
6.1 Schools:					
Tuition, etc	$8,503 85				
Salaries: Janitors and others			$35,000 00	$34,999 25	
General Expenses	72 50	$20,110 00	29,000 00	47,421 10	
New Schoolhouse, "Elm St."			80,000 00		$31,025 35
NewSchoolhouse"Washington"			23,555 96		19,137 41
New Schoolhouse"Willow St."			60,965 14		59,980 67
Care of Truants			1,800 00	1,786 22	
Flags			100 00	99 28	
Incidentals			1,500 00	1,603 93	
Salaries			353,000 00	357,291 30	
Text Books and Supplies	517 44		16,000 00	15,884 86	
Transportation			350 00	309 00	
Vacation Schools					
	$9,093 79	$20,110 00		$459,394 94	$110,143 43
6.2 Libraries:					
Main Library			18,000 00	17,965 25	
East Cambridge Branch			1,400 00	2,395 26	
Library Addition			1,359 38		987 59
Fines	614 52				
	$614 52			$20,360 51	$987 59
6.3 Other Education:					
6.4 Miscellaneous:					
Total Public Education	$9,708 31	$20,110 00		$479,755 45	$111,131 02

SCHEDULE A–IV. — *Continued.*

7. PUBLIC ART AND RECREATION.

	Receipts.		Appropriations.	Expenditures.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
7.1 Museums and Art Galleries:					
7.2 Parks:					
Metropolitan Park Tax				$34,541 40	
Construction Account	$2,101 66		$50,793 95		$49,047 96
Commons, Squares and Public Grounds			5,000 00	4,997 16	
Cambridge Field and Shelter			4,500 00	4,499 79	
General Account	60 46		550 00	548 13	
Sections A, B, D, F and Rindge Field			2,500 00	2,979 33	
Brown Tail Moth Extermination	250 03		3,500 00	3,639 13	
Sections G and H			3,300 00	3,280 84	
Shade Trees			5,000 00	4,949 81	
Improvement at Rindge Field			3,000 00		2,999 09
	$2,412 15		$78,143 95	$59,435 59	$52,047 05
7.3 Baths:					
Construction			2,500 00		2,500 00
Park Department, Maintenance	1,134 71		2,200 00	2,193 95	
7.4 Celebrations:					
Fourth of July			Contingent	1,465 44	
Labor Day			Contingent	400 00	
Memorial Day			Contingent	1,100 00	
Ringing Bells			Contingent	39 00	
				$3,004 44	
7.5 Miscellaneous:					
Charles Sumner Statue			Contingent	311 09	
Placing Urn of Webster School House Grounds			Contingent	30 00	
				$341 09	
Total Public Art and Recreation	$3,546 86			$64,975 07	$54,547 05

SCHEDULE A–IV. — *Continued.*

8. PUBLIC INDEBTEDNESS. (Transactions during the Year.)

	Receipts.		Appro-priations.	Expenditures.	
	Ordinary.	Extra-ordinary.		Ordinary.	Extra-ordinary.
8.1 Receipts from Loans, not including temporary tax loans:					
Cambridge Bridge		$150,000 00			
Building		3,000 00			
Parks		50,000 00			
Schoolhouse		80,000 00			
Sewer		60,000 00			
Street		16,000 00			
		$359,000 00			
8.2 Payments to Sinking Funds:					
Park Department			$23,318 67	$23,318 67	
Cambridge Bridge			6,000 00	6,000 00	
Clay Lands			5,335 00	5,335 00	
General			107,067 75	107,067 75	
Harvard Bridge			8,800 00	8,800 00	
Improved Sewerage			5,764 00	5,764 00	
Water Works			123,145 78	123,145 78	
Hospital			225 00	225 00	
				$279,656 20	
8.3 Direct Payment of Matured Debt: (Not from sinking funds but from tax levy direct.)					
8.4 Floating Debt Transactions:					
Excess of temporary loans issued		31,000 00			
8.5 Miscellaneous:					
Premium Account	$5,508 00				
Total transactions concerning Public Debt	$5,508 00	$390,000 00		$279,656 20	

SCHEDULE A–IV. — *Continued.*

9. PUBLIC INTEREST.

	Receipts.		Appropriations.	Expenditures.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
9.1 Interest upon Funds on Deposit:					
Interest on Bank Deposits	$3,222 07				
9.2 Interest upon Delinquent Taxes, etc.:					
Interest on Sewer Assessments	15 36				
Interest on Sidewalk Assess'ts	97 40				
Interest on Overdue Taxes	8,461 41				
Interest on Betterments	98 39				
	$8,672 56				
9.3 Payment of Interest upon Debt:					
Upon Funded Debt				166,166 50	
Upon Temporary Tax Loans			$230,000 00	9,388 13	
Upon Park Loans				50,535 00	
Upon Water Loans			133,086 50	128,806 50	
				$354,896 13	
9.4 Miscellaneous Interest:					
Interest on Trust Funds				1,500 00	
Accrued Interest	227 39				
Total Interest	$12,122 02			$356,396 13	

SCHEDULE A–IV. — *Continued.*

10. TAXATION.

	Receipts.		Appropriations.	Expenditures.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
10.1 Real Property Taxes:					
Taxes, 1903	$1,398,904 92				
Other Years	363,989 64				
Abatements, etc.				$38,410 77	
Refund of Excess Taxes				2,990 09	
Invalid Tax Titles				124 47	
				$41,525 33	
10.2 Personal Property Taxes: (Taxes on Personal Property included in 10.1).					
10.3 Poll Taxes: (Included in 10.1).					
10.4 Other Taxes (except Franchise taxes):					
Corporation Tax	85,827 41				
Bank Tax	18,822 84			6,740 92	
10.5 Liquor Licenses:					
Contingent Fund	61 00		Contingent	15 25	
10.6 Other Licenses:					
Milk Licenses	124 00				
Minors' Licenses	133 80				
Dogs	4,305 60				
Plumbers	31 00				
Hawkers and Pedlers	200 00				
	$4,794 40				
10.7 Franchise Taxes (Ordinary): Street Railway Tax.					
10.8 Franchise Rights (Extraordinary):					
10.9 Miscellaneous:					
Contingent Fund—Old Taxes.	20 00				
Lien Account Tax				37 30	
State, County and Armory Tax				193,867 24	
				$193,904 54	
Total Taxation	$1,872,420 21			$242,186 04	

SCHEDULE A–IV. — *Continued.*

11. SPECIAL ASSESSMENTS.

	Cash Receipts.		Appropriations.	Cash Expenditures.*	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
11.1 Assessments for Laying Out, Opening and Widening Streets:					
Betterments — Streets	.....	$3,795 05	.....	.....	.....
11.2 Assessments for Paving Streets:					
11.3 Assessments for Sidewalks	....	9,426 54	.....	.....	.....
11.4 Assessments for Street Cleaning:					
11.5 Assessments for Street Sprinkling	$16,359 96				
11.6 Assessments for Street Lighting:					
11.7 Assessments for Garbage Collection, etc.:					
11.8 Assessments for Sewers	.....	1,438 86	.....	.....	.....
11.9 Assessments for Parks:					
11.10 Other Special Assessments:					
Total Special Assessments	$16,359 96	$14,660 45			

* Expenditures are included in "Streets," etc., under Nos. 4.1, 4.2, etc.

SCHEDULE A–IV. — *Concluded.*

12. UNCLASSIFIED.

(Not included elsewhere.)

	Receipts.		Appropriations.	Expenditures.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
12.1 Contingent Fund*	.....	.....	$20,000 00	.....	.....
Contingent Fund — Sale of Coal	$29 42	.....	.....	.....	.....
Sale of land on Second Street	.....	$6,000 00	.....	.....	.....
Total Unclassified	$29 42	$6,000 00			
GRAND TOTALS OF SCHEDULE A–IV	$2,336,172 85	$457,916 32	$2,648,327 85	$2,414,459 86	$487,469 82

* Expenditures shown in detail upon previous sheets, and appropriation entered here.

SCHEDULE A–v.

TRUST FUNDS, ETC.

Capital Account Transactions.

Funds.	Receipts.	Expenditures.
Cemetery Fund..	$2,583 52	$2,583 52

Income Account Transactions : None.

Grand Total Income and Capital Transactions of Trust Funds, Etc., (per Schedule A–II.).....	$2,583 52	$2,583 52

SCHEDULE A–VI.

TEMPORARY ACCOUNTS.

	Receipts.	Expenditures.
1. Temporary Tax Loans	$670,000 00	$670,000 00
2. Transfers		
3. Payments from Sinking Funds into Treasury and from Treasury to Redeem Matured Bonds	186,000 00	186,000 00
4. Rebates and Refunds*		
Total Temporary Accounts (per Schedule A-II.)	$856,000 00	$856,000 00

* Included this year under 5.1, 10.1, etc.

SCHEDULE A–VII.

A Tabulated Budgetary Statement of the Finances of all the Departments.

DEPARTMENTS.	No. in Schedule A-IV.	CREDITS.				DEBITS.	BALANCES AND TRANSFERS.				
		Revenue of the year carried to the credit of the Dept	Appropriation by the City Council.	Additional appropriations (if any).	Total credits (not including transfers).	Expenditures of the year.	Surplus of credits.	Deficiency of credits.	Transfers from this Dept. (charges).	Transfers to this Dept. (credits).	Amount carried to General Treasury.
General Government.											
Mayor's Department	1.1										
Salaries and Clerical Assistance			$5,480 00		$5,480 00	$5,362 08	$117 92		$117 92		
Other Expenses			420 00		420 00	378 84	41 16		41 16		
Councils	1.2										
City Messenger, Salaries			1,375 00		1,375 00	1,372 00	3 00		3 00		
" " Other Expenses			200 00		200 00	272 24		$72 24	2 76	$75 00	
(See No. 1.7 for Postage & Stationery)											
Clerk of Committees, Salaries			3,300 00		3,300 00	3,362 94		62 94	2 06	65 00	
" " Other Expenses			350 00		350 00	294 93	55 07		55 07		
City Council Expenses.			Contingent			5,385 81				5,385 81	
City Clerk, Salaries and Clerical Ass't			6,000 00		6,000 00	5,995 25	4 75		4 75		
" " Other Expenses			1,600 00		1,600 00	1,599 43	57		57		
Law Department	1.3										
Salaries.			4,300 00		4,300 00	4,295 00	5 00		5 00		
Expenses			700 00		700 00	700 00					
Finance	1.4										
Auditing, Salaries			3,750 00		3,750 00	3,746 72	3 28		3 28		
" Expenses			300 00		300 00	300 00					
Assessors, Salaries			11,800 00		11,800 00	12,307 19		507 19	2 81	510 00	
" Expenses			1,200 00		1,200 00	1,499 70		299 70	30	300 00	
" Plans, Engineering Dept.			200 00		200 00	176 62	23 38		23 38		
Treasury, Salaries			10,000 00		10,000 00	9,949 00	51 00		51 00		
" Expenses			4,500 00		4,500 00	4,994 23		494 23	5 77	500 00	
Sinking Funds Officials			Contingent			405 00				405 00	
Elections	1.5										
Election, City Clerk.			6,000 00		6,000 00	6,380 19		380 19		380 19	
" Registrars			3,600 00		3,600 00	3,895 05		295 05	354 95	650 00	
" Supt. Public Buildings			1,700 00		1,700 00	1,699 68	32		32		
Notifying Voters			Contingent			41 87				41 87	
City Buildings	1.6										
Public Property, City Bldgs, Salaries			9,000 00		9,000 00	8,727 46	272 54		272 54		
" " " " Expenses.			7,000 00		7,000 00	6,998 12	1 88		1 88		
(See also Nos. 1.5, 2.6, 2.7, 6.1)											

Miscellaneous	1.7										
Postage and Stationery, Messenger			1,200 00		1,200 00	1,085 11	114 89		114 89		
Gray Hearing			Contingent			3,970 00				3,970 00	
Protection of Life, Health and Property.											
Police Department	2.1										
Salaries and Clerical Assistance			128,000 00		128,000 00	128,574 59		574 59	125 41	700 00	
Expenses			5,200 00		5,200 00	6,393 41		1,193 41		1,193 41	
Fire Department	2.2										
Salaries			78,500 00		78,500 00	78,425 98	74 02		74 02		
Expenses			16,000 00		16,000 00	16,096 00		96 00		96 00	
Land for Engine House			3,000 00		3,000 00	2,815 00					185 00
Fire and Police Telegraph	2.2a										
Electrical Dept., Wire Account, Salaries			6,500 00		6,500 00	6,494 41	5 59		5 59		
" " " " Expenses			3,000 00		3,000 00	2,999 71	29		29		
Health Department	2.4										
Salaries			11,300 00		11,300 00	11,956 85		656 85	43 15	700 00	
Land for Hospital			6,500 00		6,500 00		6,500 00				6,500 00
Small-pox Hospital		2,869 20	8,000 00		10,869 20	9,630 89	1,238 31		1,238 31		
Temporary Hospital			9,000 00		9,000 00	8,163 64	836 36		836 36		
Other Expenses			7,500 00		7,500 00	8,553 42		1,053 42	11 58	1,065 00	
Inspector Milk and Vinegar, Salaries			1,360 00		1,360 00	1,334 65	25 35		25 35		
" " " Expenses			320 00		320 00	265 20	54 80		54 80		
Inspector of Provisions			800 00		800 00	794 25	5 75		5 75		
Cemeteries and Crematories	2.5										
Cemetery Department, Salaries			14,000 00		14,000 00	13,973 92	26 08		26 08		
" " Other Expenses			2,000 00		2,000 00	2,599 20		599 20	80	600 00	
Inspectors	2.6										
Public Property, Incidentals, Salaries			5,500 00		5,500 00	5,400 96	99 04		99 04		
" " " Other Expenses			850 00		850 00	703 77	146 23		146 23		
Plumbers' Examination Dept			100 00		100 00	86 00	14 00		14 00		
Sealer of Weights and Measures, Salaries			1,850 00		1,850 00	1,849 62	38		38		
Sealer of Weights and Measures, Expenses			650 00		650 00	627 49	22 51		22 51		
Militia and Armories	2.7										
Public Property, Armory, Beech Street			100 00		100 00	97 58	2 42		2 42		
" " Rifle Range			250 00		250 00	326 73		76 73	123 27	200 00	
Car Tickets			Contingent			298 86				298 86	
Public Charity and Correction.											
Almshouses	3.4										
Overseers of Poor, Farm, Labor			4,000 00		4,000 00	4,212 55		212 55		212 55	
" " " Supplies			800 00		800 00	799 86	14		14	800 00	
" " City Home, Salaries			7,000 00		7,000 00	7,285 91		285 91		285 91	
" " " Expenses			11,000 00		11,000 00	11,990 53		990 53		990 53	
(House Offal, see No. 4.9)											

SCHEDULE A–VIII. — *Continued.*

Departments.	No. in Schedule A-IV.	Credits.				Debits.	Balances and Transfers.				
		Revenue of the year carried to the credit of the Dept	Appropriation by the City Council.	Additional appropriations (if any.)	Total credits (not including transfers).	Expenditures of the year.	Surplus of credits.	Deficiency of credits.	Transfers from this Dept. (charges.)	Transfers to this Dept. (credits).	Amount carried to General Treasury.
Out-door Relief	3.5										
Outside Aid, Salaries	.....	.....	$3,600 00	.....	$3,600 00	$3,178 78	$421 22	.....	$421 22	.....	.....
" " Expenses (including care of Insane)	.....	.....	38,000 00	.....	38,000 00	39,968 92	.....	$1,968 92	.....	$1,968 92	.....
City Physician	.....	.....	1,500 00	.....	1,500 00	1,500 00	.....	.....	.....	.....	.....
Miscellaneous	3.9										
State Aid	.....	.....	25,000 00	.....	25,000 00	24,993 30	6 70	.....	6 70	.....	.....
Public Ways and Wastes.											
Administration	4.1										
Engineering Department, Salaries	.....	.....	9,200 00	.....	9,200 00	9,154 66	45 34	.....	45 34	.....	.....
" " Expenses	.....	.....	700 00	.....	700 00	689 75	10 25	.....	10 25	.....	.....
(Assessor's Plans, see No. 1.4)											
Street Department, Salaries, Supt., etc.	.....	.....	4,000 00	.....	4,000 00	4,100 00	.....	100 00	.....	100 00	.....
Opening, Grading and Widening Streets.	4.2										
Land Damages	.....	.....	35,000 00	.....	35,000 00	29,961 55	5,038 45	.....	.....	.....	$5,038 45
Construction, Clifton St.	.....	.....	700 00	.....	700 00	1,291 45	.....	591 45	.....	616 09	24 64
Commercial Av.	.....	.....	1,000 00	.....	1,000 00	383 91	616 09	.....	616 09	.....	.....
Warland St.	.....	.....	1,800 00	.....	1,800 00	1,596 99	203 01	.....	.....	.....	203 01
Board of Survey	.....	.....	100 00	.....	100 00	96 50	3 50	.....	3 50	.....	.....
Street Paving	4.3										
Rebuilding Streets, Cambridge St.	.....	.....	5,000 00	.....	5,000 00	3,867 19	1,132 81	.....	.....	.....	1,132 81
River St.	.....	450 11	10,000 00	.....	10,450 11	10,450 11	.....	.....	.....	.....	.....
Macadamizing, Resurfacing and Repairing Streets, and General Expenses	.....	.....	64,000 00	.....	64,000 00	64,977 82	.....	977 82	.....	977 82	.....
Sidewalks	4.4										
Edgestones and Sidewalks	.....	.....	30,000 00	.....	30 000 00	29,998 82	1 18	.....	1 18	.....	.....
Crossings and Repairs	.....	.....	10,000 00	.....	10,000 00	10,000 00	.....	.....	.....	.....	.....
Street Lighting	4.5										
Electrical Department, Salaries	.....	.....	1,000 00	.....	1,000 00	1,000 00	.....	.....	.....	.....	.....
" " Expenses	.....	.....	75,500 00	.....	75,500 00	74,176 66	1,323 34	.....	1,323 34	.....	.....
Street Cleaning	4.6										
Cleaning sts., (including snow removal)	.....	.....	35,000 00	.....	35,000 00	34,995 63	4 37	.....	4 37	.....	.....
Street Sprinkling	4.8										
Watering Streets	.....	.....	29,000 00	.....	29,000 00	27,902 12	1,097 88	.....	1,097 88	.....	.....

Refuse Collection and Disposal	4.9										
Overseers of Poor, House Offal, Labor			$22,500 00		$22,500 00	$24,169 50		$1,669 50		$1,669 50	
" " " Expenses			4,500 00		4,500 00	6,678 51		2,178 51		2,178 51	
Street Department, Collection of Ashes			29,000 00		29,000 00	28,797 78	202 22		202 22		
Sewers and Sewage Disposal	4.10										
Sewer Dept., Construction, General			7,500 00	$20,000 00	27,500 00	27,156 29	343 71		343 71		
" " Improved Sewerage			46,848 24	1,000 00	47,848 24	47,821 13	27 11				$27 11
" " Maintenance, General			18,000 00		18,000 00	17,999 74	26		26		
" " Dredging			2,750 00		2,750 00	2,672 78	77 22		77 22		
Bridges	4.12										
Bridge Dept., Salaries and Labor			10,400 00		10,400 00	10,438 49		38 49	11 51	50 00	
" " Expenses			6,500 00		6,500 00	6,417 72	82 28		82 28		
" " Cambridge Bridge			156,098 32		156,098 32	154,129 10	1,969 22				1,969 22
" " Paving Harvard Bridge			289 29		289 29	283 96	5 33		5 33		
Street "			3,000 00		3,000 00	3,200 00		200 00		200 00	
Miscellaneous	4.13										
Damages to Persons and Property			Contingent			3,637 85				3,637 85	
Civil Service Department			250 00		250 00	245 05	4 95		4 95		
Public Industries and Investments.											
Water Works	5.1										
Construction, General			11,025 61	1,600 00	12,625 61	8,429 25	4,196 36		750 00		3,446 36
Meters			1,000 00	1,000 00	2,000 00	2,212 51		212 51		750 00	537 49
Hobbs Brook Account:											
General			875 00		875 00	189 61	685 39				685 39
Land Settlements			2,000 00	10,000 00	12,000 00	11,540 00	460 00				460 00
Services of City Solicitor			500 00		500 00	500 00					
Stony Brook Main			5,000 00	6,000 00	11,000 00	3,482 18	7,517 82				7,517 82
Maintenance:											
General			20,200 00	200 00	20,400 00	21,649 90		1,249 90		1,250 00	10
Salaries			6,604 00		6,604 00	7,103 58		499 58		500 00	42
Pumping, Salaries			7,000 00		7,000 00	6,893 47	106 53				106 53
Other Expenses			12,000 00	5,500 00	17,500 00	13,811 24	3,688 76			1,000 00	4,688 76
Payson Park			875 00		875 00	801 81	73 19				73 19
Hobbs Brook			1,450 00		1,450 00	1,203 07	246 93				246 93
Fresh Pond			5,000 00		5,000 00	5,840 70		840 70		1,000 00	159 30
Stony Brook			5,000 00	3,000 00	8,000 00	4,025 28	3,974 72		3,750 00		224 72
Supplies			2,500 00		2,500 00	2,499 90	10				10
Ice for Fountains			500 00		500 00	460 56	39 44				39 44
Rates, fines, abatements			4,500 00		4,500 00	3,756 45	743 55				743 55
Refunds			3,500 00		3,500 00	3,169 06	330 94				330 94
(See also No. 8.2 and 9.3.)											
Public Education.											
Schools	6.1										
Schoolhouses:											
Salaries			35,000 00		35,000 00	34,999 25	75		75		
Expenses		$20,182 50	29,000 00		49,182 50	47,421 10	1,761 40		1,761 40		
New Schoolhouse, Elm St			80,000 00		80,000 00	31,025 35	48,974 65				48,974 65

SCHEDULE A–VI. — *Concluded.*

Departments.	No. in Schedule A–IV.	Credits.				Debits.	Balances and Transfers.				
		Revenue of the year carried to the credit of the Dept	Appropriation by the City Council.	Additional appropriations (if any).	Total credits (not including transfers).	Expenditures of the year.	Surplus of credits.	Deficiency of credits.	Transfers from this Dept. (charges).	Transfers to this Dept. (credits).	Amount carried to General Treasury.
Schools — *Continued.*											
New Schoolhouse, Washington			$23,555 96		$23,555 96	$19,137 41	$4,418 55				$4,418 55
" " Willow St.			60,965 14		60,965 14	59,980 67	984 47				984 47
Care of Truants			1,800 00		1,800 00	1,786 22	13 78		$13 78		
Flags			100 00		100 00	99 28	72		72		
Incidentals			1,500 00		1,500 00	1,603 93		$103 93		$103 93	
Salaries			353,000 00		353,000 00	357,291 30		4,291 30		4,291 30	
Text Books and Supplies			16,000 00		16,000 00	15,884 86	115 14		115 14		
Transportation of Pupils			350 00		350 00	309 00	41 00		41 00		
Libraries	6.2										
Main Library:											
Salaries			9,500 00		9,500 00	9,317 23	182 77		182 77		
Expenses			8,500 00		8,500 00	8,648 02		148 02	1 98	150 00	
East Cambridge Branch:											
Salaries			950 00		950 00	850 69	99 31		99 31		
Expenses			450 00		450 00	1,544 57		1,094 57	43	1,095 00	
Addition			1,359 38		1,359 38	987 59	371 79				371 79
Public Art and Recreation.											
Parks	7.2										
Construction and Lands			50,793 95	$7,500 00	58,293 95	49,047 96	9,245 99				9,245 99
Improvement at Rindge Field			3,000 00		3,000 00	2,999 09	91		91		
Maintenance:											
Brown Tail Moth Extermination		250 03	3,500 00		3,750 03	3,639 13	110 90		110 90		
Commons, Sqs. & Pub. Grounds			5,000 00		5,000 00	4,997 16	2 84		2 84		
Cambridge Field and Shelter			4,500 00		4,500 00	4,499 79	21		21		
General Account			550 00		550 00	548 13	1 87		1 87		
Sections A, B, D, F, & Rindge Fd.			2,500 00		2,500 00	2,979 33		479 33	20 67	500 00	
Sections G and H			3,300 00		3,300 00	3,280 84	19 16		19 16		
Shade Trees			5,000 00		5,000 00	4,949 81	50 19		50 19		
(See also No. 8.2 and 9.3.)											
Baths	7.3										
Park Department, Construction			2,500 00		2,500 00	2,500 00					
" " Maintenance			2,200 00		2,200 00	2,193 95	6 05		6 05		
Celebrations	7.4										
Memorial Day			Contingent			1,100 00				1,100 00	
Ringing Bells			Contingent			39 00				39 00	

Celebrations—*Continued.*											
Fourth of July			Contingent			$1,465 44				$1,465 44	
Labor Day			Contingent			400 00				400 00	
Miscellaneous	7.5										
Setting Urn at Webster School			Contingent			30 00				30 00	
Charles Sumner Statue			Contingent			311 09				311 09	
Public Indebtedness.											
(Transactions during the year.)											
Sinking Funds	8.2										
Park Department			$22,306 67		$22,306 67	22,306 67					
Cambridge Bridge			6,000 00		6,000 00	6,000 00					
Clay Lands			5,335 00		5,335 00	5,335 00					
General			107,067 75		107,067 75	107,067 75					
Harvard Bridge			8,800 00		8,800 00	8,800 00					
Hospital			225 00		225 00	225 00					
Metropolitan Park Assessment			1,012 60		1,012 00	1,012 00					
Improved Sewerage			5,764 00		5,764 00	5,764 00					
Water Works		$1,623 28	121,522 50		123,145 78	123,145 78					
Public Interest.											
Payment of Interest on Debt, etc.	9.3 9.4										
City			230,000 00		230,000 00	227,589 63	$2,410 37		$2,410 37		
Water			133,086 00		133,086 00	128,806 50	4,280 00				$4,280 00
Taxation.											
Real Property Taxes	10.1										
Abatements, etc.											
Refunds, etc.											
Liquor Licenses	10.4										
Commonwealth of Massachusetts			Contingent			15 25				15 25	
Unclassified.											
Contingent Fund	12.1	6,338 42	20,000 00		26,338 42	17,100 17	9,238 25		19,523 57	10,615 60	330 28

SCHEDULE A–VIII.

APPROPRIATIONS AND EXPENDITURES

No. 1. GENERAL GOVERNMENT.

EXECUTIVE DEPARTMENT. (1.1)

SALARIES AND CLERICAL ASSISTANCE.

Appropriation		$5,480 00
EXPENDED		
For salaries of :—		
Mayor, John H H. McNamee	$3,500 00	
Clerk, Edw. A. Counihan	1,183 33	
Stenographer, Georgie W. Sanborn	678 75	
Total		5,362 08
Surplus of Appropriation		$117 92
Transfer from this Department to Contingent Fund		117 92

GENERAL EXPENSES.

Appropriation			$420 00
EXPENDED.			
For carriage hire :—			
J. J. Callahan	$10 00		
John J. Corkery	4 00		
John J. Donahue	14 00		
Geo. E. Francis	15 00		
T. W. Hillier & Co.	9 00		
Fred D. Norton	9 00		
		$61 00	
Car tickets :—			
Boston Elevated Railway Co.		5 00	
Directory, W. A. Greenough & Co.		3 50	
Stationery, printing, etc. :—			
City Messenger Department	$60 60		
J. A. Cummings Printing Co.	26 71		
J Frank Facey	59 50		
Sundry persons	2 25		
		149 06	
Sundries		3 17	
Telephone service		128 93	
Typewriter repairs :—			
Smith Premier Typewriter Co.		3 80	
Use of sleigh, T. W. Hillier & Co.		10 00	
Amounts carried forward		$364 46	$420 00

General Government—Continued.

EXECUTIVE DEPARTMENT, GENERAL EXPENSES—Concluded.

Amounts brought forward . .		$364 46	$420 00
For work on maps:—			
Rose E. Manning	$7 13		
Helen M. Ulmer	7 25		
		14 38	
Total			378 84
Surplus of Appropriation			$41 16
Transfer from this Department to Contingent Fund .			41 16

CITY MESSENGER DEPARTMENT. (1.2)

SALARIES.

Appropriation	$1,375 00

EXPENDED.

For salaries of:—			
City Messenger, Frank T. Evans .		$1,000 00	
Assistant, Wm. E. McAnaul . .		372 00	
Total			1,372 00
Surplus of Appropriation			$3 00
Transfer from this Department to Contingent Fund .			3 00

GENERAL EXPENSES.

Appropriation	$200 00

EXPENDED.

For cabinet and cards:—			
The Fred. Macey Co. . . .		$8 43	
Car tickets, Boston Elevated Railway Co.		45 00	
Directories, W. A. Greenough & Co.		7 00	
Engraving plates for gavel:—			
C. A. Twitchell & Co. . . .		4 75	
Expressage:—			
American Express Co. . . .	$6 36		
Hatch & Co.	1 70		
Hazlett's Express	7 10		
Sawin's Express	4 75		
		19 91	
Loan of poles:—			
New England Decorating Co. .		5 00	
Rent of post office box . . .		10 00	
Amounts carried forward . . .		$100 09	$200 00

General Government—Continued.

CITY MESSENGER DEPARTMENT, GENERAL EXPENSES—Concluded.

Amounts brought forward . .		$100 09	$200 00
For stationery, printing, etc.: —			
City Messenger Department, Postage and Stationery . . .	$95 22		
J. Frank Facey	3 50		
		98 72	
Subscriptions: —			
Cambridge Chronicle Co. . .	$2 50		
Cambridge Press	1 00		
Geo E. French	6 00		
		9 50	
Sundries		5 53	
Telephone service		58 40	
Total			272 24
Excess of expenditures over Appropriation			$72 24
Transfer to this Department from Contingent Fund			75 00
			$2 76
Transfer from this Department to Contingent Fund			2 76

CLERK OF COMMITTEES DEPARTMENT. (1.2)

SALARIES.

Appropriation	$3,300 00

EXPENDED.

For salaries of: —		
Clerk of Committees, John McDuffie	$2,400 00	
Assistant, Eben W. Pike . .	962 94	
Total		3,362 94
Excess of Expenditures over Appropriation . .		$62 94
Transfer to this Department from Contingent Fund .		65 00
		$2 06
Transfer from this Department to Contingent Fund .		2 06

GENERAL EXPENSES.

Appropriation	$350 00

EXPENDED.

For advertising: —			
Cambridge Democrat . . .	$3 00		
Times Publishing Co. . . .	3 00		
		$6 00	
Atlas, G. W. Bromley & Co. . .		30 00	
Binding, David Farquhar . . .		4 10	
Amounts carried forward . .		$40 10	$350 00

General Government—Continued.

CLERK OF COMMITTEES DEPT., GENERAL EXPENSES—Concluded.

Amounts brought forward . .		$40 10	$350 00
For directories :—			
W. A. Greenough & Co. . . .	$7 00		
Sampson, Murdock & Co. . .	6 00		
		13 00	
Mass. Year Book, F. S. Blanchard & Co.		3 00	
Newspaper file, David Farquhar .		3 00	
" Revised Laws," Little, Brown & Co.		7 00	
Stationery, printing, etc. :—			
Adams, Cushing & Foster . .	$7 42		
Cambridge Chronicle Co. . .	27 60		
City Messenger Department . .	89 94		
Cotton & Gould	2 00		
		126 96	
Stenography and typewriting :—			
Annie E. Conley		12 00	
Subscriptions :—			
Cambridge Chronicle Co. . .	$5 00		
Cambridge Democrat . . .	1 00		
Cambridge Press	1 00		
		7 00	
Sundries		75	
Telephone service		74 82	
Typewriter repairs :—			
American Writing Machine Co. .		7 30	
Total			294 93
Surplus of Appropriation			$55 07
Transfer from this Department to Contingent Fund .			55 07

CITY CLERK DEPARTMENT. (1.2)

SALARIES AND CLERICAL ASSISTANCE.

Appropriation			$6,000 00
EXPENDED.			
For salaries of :—			
City Clerk, Edw. J. Brandon . .	$3,000 00		
Assistant City Clerk, A. M. Pear .	1,400 00		
		$4,400 00	
Clerks :—			
Annie E. Conley	$624 00		
Margaret A. Dayton . . .	97 25		
Anne Jacobs	250 00		
Amanda R. Murray . . .	624 00		
		1,595 25	
Total			5,995 25
Surplus of Appropriation			$4 75
Transferred to Contingent Fund			4 75

General Government—Continued.

CITY CLERK DEPARTMENT—Continued.

GENERAL EXPENSES.

Appropriation $1,600 00

DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.

For fees from sundry persons . . $2,662 34

EXPENDED.

For Atlas, G. W. Bromley & Co.			$30 00
Binding, J. H. H. McNamee Co.			19 25
Blue book, Edw. A. Jones			1 50
Canvassing for births:—			
Manuel Andrew	$57 00		
Wm. D. Donovan	54 00		
Emile J. Grenier	75 00		
Warren Ivers	30 00		
Jas. E Lennon	45 00		
Wm. F. McCormick	57 00		
Geo. H. Munroe	33 00		
John O'Connell	30 00		
Patrick J. White	54 00		
			435 00
Directories:—			
W. A. Greenough & Co.	$3 50		
Sampson, Murdock & Co.	6 00		
			9 50
Expressage			2 85
Mass Year Book, F. S. Blanchard & Co.			3 00
Official bond for Ass't City Clerk:—			
Geo. H. Carrick			12 00
Posting and serving notices:—			
Bay State Claim Co.	$5 00		
Jas. E. Lennon	27 75		
Chas. F. Manning	10 00		
			42 75
Recording deeds, etc., E. O. Childs			40 00
Registration of releases, etc.:—			
Frederic D. Fisk			6 50
Repairing desk, Jas. Grant			15 43
Reporting births:—			
Sundry physicians, etc.			417 00
Stamps, etc:—			
Boston Stencil & Stamp Works			4 60
Stationery, printing, etc.:—			
Cambridge Chronicle Co.	$22 00		
City Messenger Department	102 80		
Cotton & Gould	7 85		
J. A. Cummings Printing Co.	19 00		
Amounts carried forward	$151 65	$1,039 38	$1,600 00

General Government—Continued.

CITY CLERK DEPARTMENT, GENERAL EXPENSES—Concluded.

Amounts brought forward . .	$151 65	$1,039 38	$1,600 00
For J. Frank Facey	87 50		
E. W. S. Jones	8 25		
Henry M. Meek Publishing Co. .	12 50		
Chas. H. Thurston . . .	22 20		
Times Publishing Co. . . .	16 50		
Edw. W. Wheeler	22 00		
Sundry persons	8 20		
		328 80	
Subscriptions:—			
Cambridge Chronicle Co. . .	$5 00		
Cambridge Press	1 00		
		6 00	
Telephone service		99 25	
Verifying and obtaining facts for record, Wm. F. McCormick .		108 00	
"Washburn on Real Property":—			
Wm. J. Nagel		18 00	
Total			1,599 43
Surplus of Appropriation			57
Transferred to Contingent Fund			57

LAW DEPARTMENT. (1.3)

SALARIES AND CLERICAL ASSISTANCE.

Appropriation		$4,300 00
EXPENDED.		
For salaries of:—		
City Solicitor, G. A. A. Pevey .	$3,500 00	
Stenographer, Henry P. Jones .	795 00	
Total		4,295 00
Surplus of Appropriation		$5 00
Transferred to Contingent Fund		5 00

GENERAL EXPENSES.

Appropriation		$700 00
DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.		
For services of City Solicitor:—		
Water Works Department . .	$500 00	
EXPENDED.		
For advertising, Boston Daily Advertiser	$4 95	
Car tickets:—		
Boston Elevated Railway Co. .	150 00	
Amounts carried forward . . .	$154 95	$700 00

General Government—Continued.

LAW DEPARTMENT, GENERAL EXPENSES.—Concluded

Amounts brought forward . .		$154 95	$700 00
For cash expended for sundries: —			
G. A. A. Pevey		14 40	
Directory, Sampson, Murdock & Co.		6 00	
Entries, Middlesex County . .		16 25	
Legal services, Henry H. Winslow .		25 00	
Mass. Documentary Statutes . .		50	
Mass. Year Book, F. S. Blanchard & Co.		3 00	
"Municipal Corporations": —			
Wm. J. Nagel		12 00	
Municipal Corporation Cases: —			
The Michie Co.		15 00	
Office rent, Bangs & Wells . .		250 00	
Serving notices, Walter C. Wardwell		3 74	
Stationery, printing, etc.: —			
T. H. Ball	$27 66		
Cambridge Chronicle Co. . .	5 00		
City Messenger Department . .	49 85		
		82 51	
Stenographic report, H. W. Gleason		22 65	
Subscription: —			
The Review & Record Co. . .		5 00	
Telephone service		89 00	
Total			700 00

AUDITING DEPARTMENT. (1.4)

SALARIES AND CLERICAL ASSISTANCE.

Appropriation			$3,750 00
EXPENDED.			
For salary of: —			
City Auditor, Harry T Upham .		$2,466 72	
Clerical assistance: —			
Esther L. Cogan	$772 50		
Mabel W. Hall	500 50		
M. Alice Dow	7 00		
		1,280 00	
Total			3,746 72
Surplus of Appropriation			$3 28
Transferred to Contingent Fund			3 28

General Government — Continued.

AUDITING DEPARTMENT — Continued.

GENERAL EXPENSES.

Appropriation			$300 00
EXPENDED.			
For binding, J. H. H. McNamee Co.		$15 00	
Cabinet and card index :—			
Globe-Wernicke Co.		54 52	
Directory, W. A. Greenough & Co.		3 50	
Official bond for City Auditor :—			
Arthur R. Henderson		30 00	
Stamps and repairs		4 00	
Stationery, printing, etc. :—			
City Messenger Department	$52 23		
Cotton & Gould	7 00		
J. Frank Facey	74 50		
The Co-operative Press	15 75		
Thorp & Martin Co.	22 20		
		171 68	
Subscriptions		8 50	
Sundries		2 30	
Telephone service		10 50	
Total			300 00

ASSESSORS' DEPARTMENT. (1.4)

SALARIES AND CLERICAL ASSISTANCE.

Appropriation			$11,800 00
EXPENDED.			
For salaries of Assessors :—			
Wm. F. Brooks	$1,833 33		
John M. Davis	500 00		
Jeremiah F. Donovan	1,291 67		
Joshua G. Gooch	166 67		
D B. Shaughnessy	2,000 00		
		$5,791 67	
Assistant Assessors :—			
Manuel Andrew	$184 00		
Bernard J. Brogan	184 00		
Lyman W. Brooks	144 00		
Thos F. Cosgrove	184 00		
Edward Grant	172 00		
Wm. P. Purcell	188 00		
Joseph A. Ryan	180 00		
Wm Stolba	192 00		
Michael H. Sullivan	184 00		
Daniel J. Toomey	184 00		
Patrick J. White	184 00		
		1,980 00	
Amounts carried forward		$7,771 67	$11,800 00

General Government — Continued.

ASSESSORS' DEPARTMENT, SALARIES AND CLERICAL ASSISTANCE — Concluded.

Amounts brought forward . .		$7,771 67	$11,800 00
For clerks :—			
Carrie A. Estes	$780 00		
Kittie L. Magoun . . .	780 00		
Jessie I. R. Waterman . . .	780 00		
Temporary clerks	2,195 52		
		4,535 52	
Total			12,307 19
Excess of Expenditures over Appropriation			$507 19
Transfer to this Department from Contingent Fund			510 00
Transfer to Contingent Fund from this Department			$2 81

GENERAL EXPENSES.

Appropriation	$1,200 00

DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.

For fees for copies from records . .	$1 50

EXPENDED.

For abstracts, Horace J. Stevens .		$75 00	
Atlas, G. W. Bromley & Co. . .		30 00	
Car tickets : —			
Boston Elevated Railway Co .		50 00	
Directories		9 50	
Expressage		90	
Floral wreath, P. O'Brien & Son .		7 50	
Stationery, printing, etc. : —			
Cambridge Chronicle Co. . .	$41 50		
City Messenger Department . .	107 37		
Cotton & Gould	327 36		
J. A. Cummings Printing Co .	690 00		
J. Frank Facey	49 50		
E. W. S. Jones	37 00		
		1,252 73	
Subscription, Review and Record Co.		5 00	
Telephone service		52 07	
Use of horse and carrige : —			
Whiting & Prescott . . .		17 00	
Total			1,499 70
Excess of Expenditures over Appropriation . .			$299 70
Transfer to this Department from Contingent Fund .			300 00
Transfer to Contingent Fund from this Department .			30

General Government — Continued.

ENGINEERING DEPARTMENT.

ASSESSORS' PLANS. (1.4)

Appropriation		$200 00
EXPENDED.		
For services of engineers	$176 62	
Total		176 62
Surplus of Appropriation		$23 38
Transfer from this Department to Contingent Fund		23 38

TREASURY DEPARTMENT.

SALARIES AND CLERICAL ASSISTANCE. (1.4)

Appropriation		$10,000 00
EXPENDED.		
For salaries of :—		
City Treasurer, Wm. W. Dallinger	$3,000 00	
Clerks :—		
E. G. Stevens	1,565 00	
E. J. Howlett	1,252 00	
J. H. Webber	1,252 00	
C. H. Dodge	315 00	
P. B. Dallinger	730 34	
E. E. Estes	782 50	
Temporary clerks	1,052 16	
Total		9,949 00
Surplus of Appropriation		$51 00
Transfer to Contingent Fund from this Department		51 00

GENERAL EXPENSES. (1.4)

Appropriation		$4,500 00
DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.		
For fees from sundry persons as follows :—		
Advertising	$359 33	
Deeds	388 00	
Descriptions	295 00	
Posting	256 00	
Recording	29 10	
Tax summonses	1,073 60	
	$2,401 03	
Amount carried forward		$4,500 00

General Government — Continued.

TREASURY DEPARTMENT, GENERAL EXPENSES — Concluded.

Amount brought forward			$4,500 00
EXPENDED.			
For advertising, The Cambridge Press		$378 00	
Carriage hire, M. J. Fairbanks		521 00	
Commissions for collecting taxes: —			
John Foster	$5 19		
Joseph Fox	550 97		
Edward Grant	142 50		
Warren Ivers	674 94		
Dennis J. Moynahan	652 48		
		2,026 08	
Directories: —			
W. A. Greenough & Co.	$7 00		
Sampson, Murdock & Co.	6 00		
		13 00	
Electrical work, F. Bryant & Co.		1 12	
Mass. Year Book, F. S. Blanchard & Co.		3 00	
Postage, F. M. Small		1,217 10	
Official bond for City Treasurer: —			
Geo. H. Carrick		160 00	
Recording deeds, E. O. Childs		67 45	
Stamps, etc.: —			
Boston Stencil & Stamp Works		8 00	
Stationery, printing, etc.: —			
American Bank Note Co.	$30 00		
City Messenger Department	37 59		
Wm. H. Claflin & Co.	28 50		
Cotton & Gould	30 50		
J. A. Cummings Printing Co.	10 94		
J. Frank Facey	19 50		
John H. Ford	128 75		
E. W. S. Jones	26 00		
Monk, Bordley & Evans	31 25		
The Co-operative Press	136 50		
		479 53	
Subscription, Geo. E. French		6 00	
Telephone service		113 95	
Total			$4,994 23
Excess of Expenditures over Appropriation			$494 23
Transfer to this Department from Contingent Fund			500 00
Transfer from this Department to Contingent Fund			$5 77

ELECTION EXPENSES, CITY CLERK. (1.5)

Appropriation			$6,000 00
EXPENDED.			
For election officers		$3,032 00	
Precinct men		140 00	
Amounts carried forward		$3,172 00	$6,000 00

General Government — Continued.

ELECTION EXPENSES, CITY CLERK — Continued.

Amounts brought forward	$3,172 00		$6,000 00
For bell ringers	26 00		
Special officers	41 00		
Special clerks	43 00		
Clerical services :—			
M. A. Dayton	$80 39		
M. L. Corcoran	2 00		
Frances G. Ells	4 25		
Anne Jacobs	25 00		
Clerical services at recount :—			
Edward F. Walsh	8 00		
		3,401 64	
Advertising :—			
Cambridge Chronicle Co.	$18 88		
Cambridge Democrat	144 00		
Cambridge Press	129 00		
Cambridge Sentinel Publishing Co.	18 00		
Cambridge Tribune Co.	66 60		
Sacred Heart Review	30 00		
Times Publishing Co.	132 00		
		537 88	
Apples, Lewis B. Chandler		4 00	
Barge hire, John Nixon		199 00	
Boxes, Place Box Co.		47 50	
Carriage hire : —			
F. R. Nickerson	$5 00		
Whiting & Prescott	5 00		
		10 00	
Car tickets : —			
Boston Elevated Railway Co.		20 00	
"Caucus Laws," Richard L. Gay		24 75	
Distributing cards, Fred. E. Thyng		44 00	
Folding ballots and mounting : —			
J. H. H. McNamee Co.		104 80	
Hardware and supplies : —			
E. T Bynner		5 00	
Labor, T. J. Denton		89 13	
Lunches : —			
W. S Sprague	$33 47		
Sundry persons	2 50		
		35 97	
Moving boxes, etc., P. Biggin		13 00	
Painting bulletins and sign cards : —			
Thos. Sweeney		24 50	
Paper, A. Storrs & Bement Co.		60 26	
Papering frame and work on tabulation : —			
J. J. Foley		12 83	
Amounts carried forward		$4,634 26	$6,000 00

General Government —Continued.

ELECTION EXPENSES, CITY CLERK — Concluded.

Amounts brought forward		$4,634 26	$6,000 00
For posting and serving notices: —			
James E. Lennon	$9 00		
Geo. H. Munroe	9 00		
		18 00	
Rent, Union Hall Association		40 00	
Repairing ballot boxes: —			
Hall Bros.	101 20		
W. H. Norris	7 78		
		108 98	
Services: —			
Joseph J. Donahue	$13 25		
Wm. F. McCormick	13 00		
Sundry persons	3 00		
		29 25	
Stamps: —			
Boston Stencil and Stamp Works	$3 00		
Estate of H. C. Dimond & Co.	47 22		
		50 22	
Stationery, printing, etc.: —			
Cambridge Chronicle Co.	$63 75		
Caustic-Claflin Co.	395 05		
City Messenger Department	39 04		
Cotton & Gould	86 50		
J. A. Cummings Printing Co.	357 25		
J. Frank Facey	436 25		
Chas. H. Thurston	3 00		
Times Publishing Co.	5 50		
Edw. W. Wheeler	87 30		
Sundry persons	3 65		
		1,477 29	
Sundries		14 95	
Telephone service		7 24	
Total			6,380 19
Excess of Expenditures over Appropriation			$380 19
Transfer to this Department from Contingent Fund			380 19

ELECTION EXPENSES, REGISTRARS OF VOTERS. (1.5)

Appropriation			$3,600 00
EXPENDED.			
For salaries of Registrars of Voters and Clerk: —			
Peter P. Bleiler	$185 91		
J. Frank Facey	437 50		
John P. McCormick	291 67		
Isaac S. Pear	350 00		
C. Burnside Seagrave	105 76		
		$1,370 84	
Amounts carried forward		$1,370 84	$3,600 00

General Government — Continued.

ELECTION EXPENSES, REGISTRARS OF VOTERS — Concluded.

Amounts brought forward		$1,370 84	$3,600 00
For clerical assistance :—			
Ella A. Lothrop	$354 00		
Jessie I. R. Waterman	2 00		
		356 00	
Advertising :—			
Cambridge Chronicle Co.	$11 88		
Cambridge Democrat	13 75		
Cambridge Press	14 00		
Cambridge Tribune	13 50		
Times Publishing Co.	13 00		
Union Advocate	6 00		
		72 13	
Binding, David Farquhar		18 20	
Carriage hire, F. R. Nickerson		22 50	
Lamp, Geo. F. Dickson		4 32	
Placing and removing list boards :—			
W. H Norris		69 80	
Posting lists, Geo. H. Munroe		22 50	
Services at recount, sundry persons		230 80	
Stationery, printing, etc. :—			
James W. Bean	$1,658 25		
City Messenger Department	16 88		
E. W. S. Jones	16 75		
Louis F. Weston	2 00		
		1,693 88	
Table legs, Howe Spring Bed Co.		2 00	
Teaming, P. Biggin		9 00	
Telephone service		23 08	
Total			3,895 05
Excess of Expenditures over Appropriation			$295 05
Transfer to this Department from Contingent Fund			650 00
			$354 95
Transfer from this Department to Contingent Fund			354 95

ELECTION EXPENSES, SUPERINTENDENT OF PUBLIC BUILDINGS. (1.5)

Appropriation			$1,700 00
EXPENDED.			
For carpentry : —			
Chas H. Callahan	$26 10		
Arthur Cove	16 49		
S. J. Kelley	4 50		
W. H. Norris	492 08		
		$539 17	
Amounts carried forward		$539 17	$1,700 00

General Government — Continued.

ELECTION EXPENSES, SUPERINTENDENT OF PUBLIC BUILDINGS — Concluded.

Amounts brought forward .		$539 17	$1,700 00
For hardware and supplies: —			
Sundry persons		3 74	
Heating apparatus, Moynahan & Co.		21 19	
Paints, oils, etc., Henry Haley . .		37 13	
Painting, J. L. P. Ackers . .		70 22	
Preparing rooms for voting . .		272 80	
Rent: —			
Chas. Beck Post 56, G. A. R. .	$55 00		
Cambridge Athletic Association .	110 00		
Citizens' Trade Association . .	25 00		
Wm. L. Lockhart & Co. . .	50 00		
Malta Temple Association .	40 00		
John Molloy	5 00		
J. F. Noera	90 00		
John F. O'Brien . . .	50 00		
Observatory Hill Club . . .	35 00		
Odd Fellows' Hall Association .	80 00		
T. H. Raymond	10 00		
Red Jacket Veteran Firemen's Ass'n	27 50		
St. John's Literary Institute . .	100 00		
Union Hall Association . . .	15 00		
		692 50	
Running elevator, Edw. F. Walsh .		4 00	
Sundries		6 83	
Teaming, P. Biggin		23 00	
Use of lamps, Geo. F. Dickson		29 10	
Total			1,699 68
Surplus of Appropriation			32
Transfer from this Department to Contingent Fund .			32

PUBLIC PROPERTY DEPARTMENT.

CITY BUILDINGS. SALARIES. (1.6)

Appropriation	$9,000 00

EXPENDED.

For salaries of janitors and other employees in City Buildings .	$8,727 46	
Total		8,727 46
Surplus of Appropriation		$272 54
Transfer to Contingent Fund		272 54

General Government — Continued.

PUBLIC PROPERTY DEPARTMENT — Continued.

CITY BUILDINGS. GENERAL EXPENSES. (1.6)

Appropriation		$7,000 00

DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.

For care and heating (1.6)	$1,465 00	
Old iron	37 16	
Rent :—		
Armory, Commonwealth of Massachusetts (2.7)	1,033 32	
County of Middlesex (1.6)	450 00	
Old Bridge Schoolhouse (5.10)	65 00	
Water Works Department (1.6)	1,200 00	
Rent of land :— (5.10)		
Wm. Hanlon	229 13	
	$4,479 61	

EXPENDED.

For dues, Gas Consumers' Association		$33 00	
Expressage		25	
Fuel :—			
P. F. Gayton & Co.	$16 50		
Metropolitan Coal Co.	3,022 06		
		3,038 56	
Lighting :—			
Cambridge Electric Light Co.	$1,116 16		
Cambridge Gas Light Co.	581 00		
		1,697 16	
Use of chairs, John Cashman		7 00	
Washing towels, Nellie M. Carey		142 50	
Repairs and alterations : —			
Building fence, Dooley & Crowdis		30 93	
Carpentry : —			
Haley & Powers	$16 60		
C. Mahoney	34 65		
John Quin & Son	174 24		
		225 49	
Elevator repairs : —			
Whittier Machine Co.		68 10	
Heating and ventilating apparatus repairs : —			
Greene & Co	$13 30		
Roberts Iron Works Co.	86 66		
D. J. Wild & Co.	6 75		
Sundry persons	9 78		
		116 49	
Inspecting boilers, S. C. Baxter		2 00	
Amounts carried forward		$5,361 48	$7,000 00

General Government — Continued.

PUBLIC PROPERTY DEPARTMENT, CITY BUILDINGS, GENERAL EXPENSES — Continued.

Amounts brought forward . .		$5,361 48	$7,000 00
For lighting apparatus and electrical repairs: —			
Thos. J. Daly	$11 40		
Electrical Department Wires .	10 75		
Greene & Co.	5 58		
B. E. McDermott & Co. . .	6 30		
Sundry persons	2 12		
		36 15	
Mason work: —			
John Delaney	$242 39		
Henry McGahey	9 45		
		251 84	
Painting, glazing, etc.: —			
J. L. P. Ackers	$26 65		
J. J. Foley	20 50		
Chas. E. McMenimen . . .	46 26		
Geo. W. Wise Co. . . .	2 35		
		95 76	
Pipe and fittings: —			
Water Works Department . .		8 10	
Plaster work: —			
Harrington & Howell . . .	$14 90		
J. Leo McDonald . . .	13 98		
		28 88	
Plumbing: —			
A. Baumeister	$11 75		
Chas. A. Fallon	194 41		
W Haley	18 88		
J. T. Phelan	38 62		
Sundry persons	4 42		
		268 08	
Pointing steps: —			
John S. Jacobs & Son Co. . .		94 05	
Repairing granolithic floor: —			
Thos. Leahy & Son . . .		8 00	
Roof repairs: —			
John J. Blevins	$159 38		
Howard F. Peak	19 94		
M. J. Sheehan	46 74		
		226 06	
Weather strips: —			
Chamberlin Metal Weather Strip Company		13 00	
Supplies: —			
Clocks and Repairs: —			
E. J. Dumphy	$8 00		
Wm. Humans	13 75		
Amounts carried forward . . .	$21 75	$6,391 40	$7,000 00

General Government — Continued.

PUBLIC PROPERTY DEPARTMENT, CITY BUILDINGS, GENERAL EXPENSES — Concluded.

Amounts brought forward	$21 75	$6,391 40	$7,000 00
For Jas. A. Rice	6 00		
Geo. M. Stevens Co.	2 88		
		30 63	
Furniture, furnishings and repairs: —			
W. R. Cleary	$25 50		
Geo. H. Hogan	4 00		
Paine Furniture Co.	11 50		
John Quin & Son	68 36		
Worcester Bros.	35 32		
		144 68	
Hardware, tools and supplies: —			
Boston Engineers' Supply Co.	$13 26		
Cambridge Elec. and Supply Co.	6 45		
P. J. Carmichael	6 78		
Wm. H. Claflin & Co.	6 00		
E. P. Clarke	20 00		
J. H. Corcoran & Co.	7 75		
Daniel H. Dean	3 50		
Wm. H. Delaney	3 20		
B. J. Heaney	3 50		
Geo. T. Johnson Co.	17 61		
Chas. Munroe	16 60		
Sundry persons	8 55		
		113 20	
Ice, Fresh Pond Ice Co.		33 38	
Oil and engine supplies: —			
Boston Engineers' Supply Co.	$147 50		
Lubron Manufacturing Co.	10 00		
		157 50	
Soap and sundry supplies: —			
Boston Engineers' Supply Co.	$27 73		
E. P. Clarke	3 50		
J. H. Corcoran & Co.	21 75		
Wm. H Delaney	4 50		
India Alkali Works	11 25		
A. M. Norris, Agt.	3 00		
G. P. O'Brien	17 60		
		89 33	
Towels, J. H. Corcoran & Co.		38 00	
Total		$6,998 12	

SUMMARY—EXPENDED.

Fuel	$3,038 56	
Lights	1,730 16	
Repairs and alterations	1,622 68	
Supplies	606 72	
		6,998 12
Surplus of Appropriation		$1 88
Transferred to Contingent Fund		1 88

General Government — Concluded.

CITY MESSENGER DEPARTMENT.

POSTAGE AND STATIONERY. (1.7)

Appropriation	$1,200 00

DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.

For supplies to Sundry Departments	$1,059 31

EXPENDED.

Postage, F. M. Small		$550 00	
Printing, Cambridge Chronicle Co.		3 75	
Stationery and supplies: —			
A. R. Andrews	$3 00		
F. L. Beunke	100 01		
Carter's Ink Co.	4 00		
Cotton & Gould	382 33		
Joseph A. Gray Co.	13 25		
E. F. Hunt & Co.	5 00		
Chas. H. Thurston	18 00		
Sundry persons	5 77		
		531 36	
Total			1,085 11
Surplus of Appropriation			$114 89
Transfer from this Department to Contingent Fund			114 89

2. PROTECTION OF LIFE, HEALTH AND PROPERTY.

POLICE DEPARTMENT. (2.1)

SALARIES AND CLERICAL ASSISTANCE.

Appropriation		$128,000 00
EXPENDED.		
For salaries of: —		
Chiefs: —		
L. J. Cloyes	$1,263 28	
H. J. Cunningham	736 48	
Deputy Chief, W. F. Batchelder	1,500 00	
Captains: —		
M. J. Folsom	704 74	
J. J. McBride	515 52	
J. F. Murray	1,399 92	
F. B. Pullen	1,399 92	
Inspector, J. E. Murray	1,399 92	
Lieutenants: —		
Henry C. Jones	1,058 06	
James M. Keaney	493 50	
Sergeants	7,094 75	
Patrolmen	95,221 08	
Reserve Officers	7,812 50	
Drivers	5,397 50	
Matrons	720 00	
Pension: —		
L. J. Cloyes	368 16	
M. J. Folsom	257 76	
Frederick Apel	438 00	
Edw. F. Belcher	199 50	
Henry C. Jones	48 00	
Benjamin McKeen	546 00	
Total		128,574 59
Excess of Expenditures over Appropriation		$574 59
Transfer to this Department from Contingent Fund		700 00
		$125 41
Transfer from this Department to Contingent Fund		125 41

GENERAL EXPENSES.

Appropriation		$5,200 00
DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.		
For ambulance removals (2.1)	$159 75	
Cloth (2.1)	484 47	
Amounts carried forward	$644 22	$5,200 00

Protection of Life, Health and Property — Continued.

POLICE DEPARTMENT, GENERAL EXPENSES — Continued.

Amounts brought forward	$644 22	$5,200 00
For fines, etc.: — (2.3)		
J. R. Fairbairn, House of Correction	754 00	
E. W. Law, Third District Court	3,355 05	
Minors' licenses (10.6)	133 80	
Property sold at public auction (2.1)	54 13	
	$4,941 20	

EXPENDED.

For badges, E. T. Bynner	$13 90	
Belts, Hugh McCaffrey	42 98	
Billies, John F. Ford & Co.	18 00	
Binding, J. H. H. McNamee Co.	46 35	
Buttons, D. Evans & Co.	50 00	
Carriage hire, John J. Corkery	4 00	
Car tickets, Boston Elevated Railway Co.	300 00	
Cash expended for sundries: —		
H. J. Cunningham	$16 05	
J. E. Murray	16 75	
J. F. Murray	9 21	
F. B. Pullen	28 01	
Sundry persons	6 32	
	76 34	
Clasps, Gordon Clasp Co.	75 00	
Cleaning stations: —		
Julia Delaney	$16 65	
Mary McEachern	96 00	
Anna Wright	120 00	
	232 65	
Cloth for uniforms: —		
S Slater & Sons	$185 50	
Thos. W. Talcott	21 00	
Wendell, Fay & Co.	372 45	
	578 95	
Directories: —		
W. A. Greenough & Co.	$28 00	
Sampson, Murdock & Co.	6 00	
	34 00	
Disinfectants: —		
Puritan Germicide Co.	$13 50	
West Disinfecting Co.	7 65	
A. M. Winchester	6 75	
Sundry persons	6 50	
	34 40	
Dry goods: —		
J. H. Corcoran & Co	$13 95	
D. W. Hyde & Co.	9 76	
	23 71	
Dues, Gas Consumers' Association	36 00	
Amounts carried forward	$1,566 28	$5,200 00

Protection of Life, Health and Property — Continued.

POLICE DEPARTMENT, GENERAL EXPENSES — Continued.

Amounts brought forward . .		$1,566 28	$5,200 00
For fire arms and repairs :—			
Colt's Patent Fire Arms Mfg. Co. .	$98 00		
Wm. Read & Sons	6 81		
		104 81	
Food for prisoners, J. F. Danskin .		10 46	
Furniture, furnishings and repairs :—			
John Cashman	$14 00		
W. J. Coveny & Co. . . .	17 65		
James Grant	6 25		
D. W. Hyde & Co. . . .	6 00		
Geo. F. Ricker & Co. . . .	2 10		
		46 00	
Hand-cuffs :—			
Mattatuck Manufacturing Co. .		15 00	
Hardware, tools and supplies :—			
Brock & Eaton	$4 55		
Brock Bros.	50 64		
G. W. Burditt	4 60		
E. T. Bynner	25 54		
M. R. Jouett & Co. . . .	6 51		
Wingate W. Thomas . . .	11 64		
Yerxa & Yerxa	5 37		
Sundry persons . . .	6 59		
		115 44	
Harness and repairs :—			
Chas. E. Berry	$4 00		
M. Cavanagh . . .	8 50		
Owen Doherty	89 30		
Hugh McCaffrey	18 70		
C. D. Ormes	7 10		
		127 60	
Hay, grain and straw :—			
R. Costello	195 34		
J. Cushing & Co.	179 22		
A. G. Dore & Co.	62 35		
W. S. Sawin & Co.	120 98		
E. B. West & Co.	43 28		
		601 17	
Heating buildings :—			
Public Property Department, "City Buildings"		890 00	
Horse board, G. F. Whiting & Co. .		300 00	
Horse clipping, Ferris & Co. . .		12 00	
Horseshoeing :—			
Wm. Balmer	$34 50		
P. J. Callahan	39 00		
Martin D. Coyne	4 50		
John F. Gurry & Sons . . .	44 25		
G. W. Lowd	39 51		
Thos. Smith & Sons . . .	28 50		
		190 26	
Amounts carried forward . . .		$3,979 02	$5,200 00

Protection of Life, Health and Property — Continued.

POLICE DEPARTMENT, GENERAL EXPENSES—Continued.

Amounts brought forward . .		$3,979 02	$5,200 00
For house repairs :—			
Carpentry :—			
C. Mahoney	$9 23		
W. H. Norris	23 14		
Thos. O'Neil	48 16		
Sundry repairs . . .	6 70		
		87 23	
Ice :—			
Boston Ice Co.	$12 00		
Independent Ice Co. . . .	12 00		
		24 00	
Laundry work :—			
Mrs. Annie I. Dow . . .	$21 00		
Margaret McCabe . . .	11 00		
		32 00	
Lighting :—			
Cambridge Electric Light Co. .	$173 15		
Cambridge Gas Light Co. . .	551 60		
		724 75	
Mass. Year Book, F. S. Blanchard & Co.		3 00	
Medicines, drugs, etc. : —			
John B. O'Hara	$8 05		
Sundry persons	3 63		
		11 68	
Numbers, chevrons, straps, etc. : —			
John F. Ford & Co. . . .	$65 65		
R. Masstrangialo	12 85		
Oak Hall Clothing Co. . . .	19 00		
		97 50	
Nutriotone, Frank P. Merrill Co. .		4 00	
Photographs, F. M. Ellis . . .		42 00	
Polish, W. A. Morrison . . .		5 75	
Professional services : —			
David C. Dow, M. D. . . .	$6 00		
P. M. Fitzsimons, M. D. . .	3 00		
		9 00	
Refunds on minors' license badges .		62 50	
Repairing ambulance : —			
M. Cavanaugh	$5 00		
Chas. Waugh & Co. . . .	15 40		
		20 40	
Soap : —			
S. Caffanges Co.	$5 16		
Sundry persons	5 76		
		10 92	
Stationery, printing and typewriter supplies : —			
City Messenger Department . .	$80 08		
Cotton & Gould	174 87		
J. A. Cummings Printing Co. .	7 38		
Amounts carried forward . . .	$262 33	$5,113 75	$5,200 00

Protection of Life, Health and Property — Continued.

POLICE DEPARTMENT, GENERAL EXPENSES—Concluded.

Amounts brought forward	$262 33	$5,113 75	$5,200 00
For J. Frank Facey	187 00		
Globe-Wernicke Co.	23 80		
Smith-Premier Typewriter Co.	5 10		
Chas. H. Thurston	7 80		
Sundries	2 75		
		488 78	
Sundries		14 15	
Telephone service		373 31	
Tires for patrol wagon: —			
Columbia Vehicle Tire Co.		69 00	
Wagon repairs: —			
J. E. Fitzgerald	$22 75		
T. H. Kneeland	286 25		
Chas. Waugh & Co.	25 42		
		334 42	
Total			6,393 41
Excess of Expenditures over Appropriation			$1,193 41
Transfer to this Department from Contingent Fund			1,193 41

FIRE DEPARTMENT. (2.2)

SALARIES.

Appropriation			$78,500 00
EXPENDED.			
For salaries of: —			
Chief, Thomas J. Casey		$2,000 00	
Assistant Chief, N. W. Bunker		1,400 00	
Permanent men		59,198 47	
Call men		14,663 51	
Pension pay roll: —			
Eliot E. Alley	$66 00		
Arthur C. Day	66 00		
Edw. E. Priest	516 00		
Jas. H. Skehan	516 00		
		1,164 00	
Total			78,425 98
Surplus of Appropriation			$74 02
Transfer from this Department to Contingent Fund			74 02

GENERAL EXPENSES.

Appropriation			$16,000 00
DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.			
For barrels	$0 50		
Board of horse	125 00		
Amounts carried forward	$125 50		$16,000 00

Protection of Life, Health and Property — Continued.

FIRE DEPARTMENT, GENERAL EXPENSES — Continued.

Amounts brought forward	$125 50		$16,000 00
For old horse	50 00		
Old ladder truck	15 00		
	$190 50		

EXPENDED.

For apparatus and repairs:—			
American Locomotive Co.	$1,662 93		
Henry K. Barnes	8 00		
Boston Woven Hose Co.	757 53		
Campbell Iron Works	551 90		
Wm. Elliott & Co.	159 85		
Higgins & Co.	6 45		
Harry Hunt	18 50		
Peter McMurray	120 60		
Stephen J. Moran	195 95		
C. W. H. Moulton & Co	75 00		
Joseph Palmer	9 00		
C. N. Perkins Co.	4 32		
Scrannage Bros.	13 65		
H. J. Shaw	16 32		
Smith Bros. Co.	37 75		
H. H. Tilton & Co.	5 00		
Chas. Waugh & Co.	34 45		
Sundry persons	5 00		
		$3,682 20	
Badges and figures:—			
Merriam & Xavier		28 00	
Brooms, brushes, dusters, etc:—			
G. W. Burditt	$15 00		
Continental Brush Co.	14 00		
Higgins & Co	2 00		
B. Lacroix & Son	21 00		
		52 00	
Disinfectant, A. M. Winchester		6 90	
Dues, Gas Consumers' Association		9 00	
Expressage and teaming:—			
Savage & Son	$14 17		
Sawin's Express	3 09		
Sundry persons	1 25		
		18 51	
Fuel, Metropolitan Coal Co.		2,622 71	
Furniture, furnishings and repairs, and bedding:—			
Wm. H. Brown	$3 25		
J. H. Corcoran & Co.	4 50		
D. W. Hyde & Co.	21 36		
Worcester Bros.	69 90		
		99 01	
Amounts carried forward		$6,518 33	$16,000 00

Protection of Life, Health and Property — Continued.

FIRE DEPARTMENT, GENERAL EXPENSES — Continued.

Amounts brought forward . .	$6,518 33		$16,000 00
For hardware, tools and supplies: —			
Brock & Eaton	5 49		
Brock Bros.	17 25		
G. W. Burditt	24 90		
E. T. Bynner	180 58		
Cambridge Hardware Co. . .	9 59		
J. A Holmes & Co. . .	17 00		
H. N. Hovey & Co.	14 18		
M. R. Jouett & Co.	8 81		
F. A. White	17 83		
Jas. H. Wyeth & Co. . . .	7 43		
Sundry persons	1 80		
		304 86	
Harness and repairs: —			
Chas. E. Berry . . .	$39 75		
M. Cavanagh	11 85		
Owen Doherty	10 15		
John J. Hawkes	4 10		
F. Ivers & Son	34 20		
Wm. H. Roberts	40 15		
		140 20	
Hauling engine: —			
Connecticut Steam Stone Co. .		4 50	
Hay, grain and straw: —			
Cambridge Grain Co. . . .	$41 58		
J. Cushing & Co.	4,198 16		
E. R. Luke & Co.	351 69		
		4,591 43	
Heating buildings: —			
Public Property Department, "City Buildings"		375 00	
Horses, Welch & Hall Co. . . .		385 00	
Horse food: —			
Blue Ribbon Animal Health Food Co.		9 00	
Horseshoeing: —			
Wm. Balmer	$32 00		
Wm. Bell	65 50		
D. L. Bolger Horseshoeing Co. .	96 25		
P. J. Callahan	116 25		
James C. Croucher	63 25		
G. F. Farnum	6 00		
W. F. Garrett	101 50		
John F. Gurry & Sons . . .	154 75		
T. Hickey	59 25		
C. J. McCarthy	7 00		
D. F. McCarthy & Co. . . .	49 50		
John Ryan	6 50		
Bernard Smith	74 00		
Thos. Smith & Sons . . .	68 75		
		900 50	
Amounts carried forward . . .		$13,228 82	$16,000 00

Protection of Life, Health and Property — Continued.

FIRE DEPARTMENT, GENERAL EXPENSES — Continued.

Amounts brought forward . .		$13,228 82	$16,000 00
For house repairs: —			
Carpentry: —			
Alfred Allcock	$7 75		
D. K. Dinsmore	88 88		
W. H. Norris	144 43		
John Quin & Son . . .	107 90		
Lighting apparatus: —			
Geo. F. Dickson	1 50		
Painting and glazing: —			
J. J. Foley	241 90		
Plumbing: —			
Levi Hawkes	14 70		
J. T. Phelan . . .	22 14		
H. L. Rose	31 82		
Roof repairs, etc.: —			
John J. Blevins	4 72		
Pennell & Co.	31 90		
		697 64	
Ice: —			
Cambridge Ice Co.	$22 80		
Fresh Pond Ice Co. . . .	30 55		
Independent Ice Co. . . .	6 00		
		59 35	
Laundry work: —			
University City Laundering Co. .		242 74	
Lighting: —			
Cambridge Electric Light Co. .	$279 78		
Cambridge Gas Light Co. . .	512 10		
		791 88	
Lumber and mill work: —			
Geo W. Gale Lumber Co. . .		82 89	
Nutriotone, F. P. Merrill Co. . .		16 00	
Oil, polish, etc.: —			
Cochrane Chemical Co. . . .	$18 51		
J. Wesley Edmonds & Son . .	45 90		
Standard Oil Co.	77 40		
Geo. Wm. Waite Co. . . .	13 25		
Sundry persons	1 75		
		156 81	
Paving driveways at engine houses: —			
Labor as per pay rolls . . .		33 39	
Printing: —			
Cambridge Chronicle Co. . .	$24 50		
J. A. Cummings Printing Co. .	10 71		
		35 21	
Repairing hats, E. P. Gleason Mfg. Co.		17 05	
Sand, Street Department . . .		6 00	
Shavings, C. W H. Moulton & Co. .		20 00	
Amounts carried forward . . .		$15,387 78	$16,000 00

Protection of Life, Health and Property — Continued.

FIRE DEPARTMENT, GENERAL EXPENSES — Concluded.

Amounts brought forward . .		$15,387 78	$16,000 00
For soap and washing powder :—			
F. C. Davis	$18 83		
Chas. R. Teele Estate . . .	11 50		
		30 33	
Soda, Mathieson Alkali Works .		30 24	
Sponges, Leousi, Clonney & Co. .		46 69	
Stationery, City Messenger Department		5 11	
Storage of ladder truck :—			
F. Ivers & Son		17 00	
Sulpho-Napthol, Sulpho-Napthol Co.		24 00	
Sundries		2 00	
Telephone service		77 50	
Use of men and horses :—			
Mortimer Downey & Son . .	$4 00		
Frank F. Duvey	17 00		
Fresh Pond Ice Co. . . .	71 00		
Chas. Linehan	10 00		
D. F. McConologue . . .	4 00		
Jas. P. McSorley	67 50		
Wm. Miller	7 00		
Otis S. Neale Co.	20 00		
M. O'Sullivan	31 00		
John M. Riley	108 00		
Michael Shea	64 00		
Jeremiah Sullivan	37 00		
Peter Tumilty	17 00		
		457 50	
Waste, Casey, Bigley & Co. . .		17 85	
Total			16,096 00
Excess of Expenditures over Appropriation . .			$96 00
Transfer to this Department from Contingent Fund .			96 00

LAND FOR ENGINE HOUSE.

Appropriation			$3,000 00
EXPENDED.			
For examining titles, Wm. V. Thompson		$65 00	
Land :—			
John Gourley *et al*	$2,200 00		
Carrie T. Hathaway . . .	550 00		
		2,750 00	
Total			2,815 00
Surplus of Appropriation			$185 00
Balance relinquished to General Treasury . . .			185 00

Protection of Life, Health and Property — Continued.

ELECTRICAL DEPARTMENT, WIRE ACCOUNT. (2.2a)

SALARIES AND LABOR.

Appropriation			$6,500 00
EXPENDED.			
For salaries of: —			
Inspectors of Wires: —			
Chas. F. Hopewell	$341 65		
Timothy C. O'Hearn	658 35		
		$1,000 00	
Assistants		5,189 86	
Clerks: —			
Grace K. Dame	$50 00		
Lillian W. Hyde	60 00		
Wm. H. Sheridan	194 55		
		304 55	
Total			6,494 41
Surplus of Appropriation			$5 59
Transfer from this Department to Contingent Fund			5 59

GENERAL EXPENSES.

Appropriation			$3,000 00
DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.			
For labor and materials	$148 10		
EXPENDED.			
For apparatus and repairs and electrical supplies: —			
American Electrical Works	$109 50		
American Steel and Wire Co.	54 00		
Barbour-Stockwell Co.	4 90		
Crocker-Wheeler Co.	16 00		
Thos. J. Daly	4 18		
W. E. Decrow	50 40		
Eastern Drug Co.	53 15		
Edes Manufacturing Co.	38 69		
Electric Gas Lighting Co.	112 60		
Electric Storage Battery Co.	368 77		
F. M. Ferrin	43 58		
A. H Hews & Co.	100 00		
Holtzer-Cabot Electric Co.	9 05		
Kellogg Switchboard & Supply Co.	6 50		
H. F Livermore	27 50		
Wm. J. Murdock & Co.	12 93		
Pettingell-Andrews Co	278 94		
Simplex Electrical Co.	85 39		
Geo. M. Stevens Co.	6 35		
Stuart-Howland Co.	74 48		
Sundry persons	5 35		
		$1,462 26	
Amounts carried forward		$1,462 26	$3,000 00

Protection of Life, Health and Property — Continued.

ELECTRICAL DEPARTMENT, WIRE ACCOUNT, GENERAL EXPENSES — Continued.

Amounts brought forward . .		$1,462 26	$3,000 00
For boots, P. H. Moriarty . . .		19 50	
Car tickets: —			
Boston Elevated Railway Co. .		65 00	
Directory, W. A. Greenough & Co. .		3 50	
Execution of court: —			
U. S. Fire and Police Telegraph Co.		141 00	
Expressage: —			
Danehy's Express	$3 51		
Dodge Express Co. . . .	6 30		
Sawin's Express	25 87		
Sundry persons	2 70		
		38 38	
Furniture, furnishings and repairs: —			
Globe-Wernicke Co. . . .	$2 90		
Worcester Bros.	5 31		
		8 21	
Hardware, tools and supplies: —			
Brock & Eaton	$10 23		
Brock Bros.	12 63		
Daniel H. Dean	4 98		
W. J. Edwards	7 01		
J. D. Jewett Co.	15 72		
Jas. H Wyeth & Co. . . .	5 47		
Sundry persons	11 09		
		67 13	
Harness and repairs, and horse clothing: —			
Thos. McMahon	$16 00		
Sundry persons	3 99		
		19 99	
Heating building: —			
Public Property Department, "City Buildings"		100 00	
Horse board: —			
Cambridge Coach Co. . . .	$275 00		
John J. Corkery	25 00		
Fire Department	125 00		
		425 00	
Horseshoeing: —			
Wm. Balmer	$72 75		
John Ryan	4 75		
		77 50	
Laundry work, F. L. Churchill . .		16 43	
Lighting, etc.: —			
Cambridge Electric Light Co. .		91 67	
Lumber, Geo. W. Gale Lumber Co. .		3 60	
Mill work, Ira G. Hersey . . .		4 81	
Amounts carried forward . . .		$2,543 98	$3,000 00

Protection of Life, Health and Property — Continued.

ELECTRICAL DEPARTMENT, WIRE ACCOUNT, GENERAL EXPENSES — Concluded.

Amounts brought forward		$2,543 98	$3,000 00
For oil, paints, etc.: —			
Cochrane Chemical Co.	$3 57		
W. J Edwards	3 20		
M. Myers	4 80		
Wadsworth, Howland Co.	3 25		
		14 82	
Paper, Chas E. Perry & Co.		160 20	
Pipe, Walworth Manufacturing Co.		10 63	
Plate glass, Redding, Baird & Co.		31 82	
Refreshments, Mrs. C. F. Belcher		8 00	
Rubber gloves, sundry persons		3 15	
Stationery, printing, etc.: —			
C. S. Binner Corporation	$23 00		
Carter's Ink Co.	6 85		
Caustic-Claflin Co.	15 00		
City Messenger Department	6 02		
J. A. Cummings Printing Co.	8 15		
J. Frank Facey	25 00		
Thorp & Martin Co.	4 65		
Samuel Ward Co	4 40		
Louis F. Weston	5 00		
Sundry persons	3 05		
		101 12	
Sundries		14 96	
Telephone service		61 03	
Wagon and carriage repairs: —			
J. E. Fitzgerald	$30 00		
Middlemas Bros.	2 00		
Geo. O. Rollins Carriage Co.	9 50		
Chas. Waugh & Co.	8 50		
		50 00	
Total			2,999 71
Surplus of Appropriation			29
Transfer from this Department to Contingent Fund			29

HEALTH DEPARTMENT. (2.4)

SALARIES.

Appropriation	$11,300 00

EXPENDED.

For salaries of: —		
Medical Inspector, Dr. E. Farnham	$3,000 00	
Clerk, James B. Soper	1,200 00	
Secretary, Grace E. Wyeth	800 00	
Amounts carried forward	$5,000 00	$11,300 00

Protection of Life, Health and Property — Continued.

HEALTH DEPARTMENT, SALARIES — Concluded.

Amounts brought forward . .	$5,000 00	$11,300 00
For Sanitary Inspectors: —		
John A. Jackson	950 00	
Chas. A. Lincoln	950 00	
Geo W. White	234 00	
School Inspectors: —		
F. J. Barnes, M. D. . . .	100 00	
F. F. Carr, M D.	41 65	
W. H. Clancy, M. D. . . .	158 35	
G. P Cogswell, M. D. . . .	41 65	
Ambrose Crowley, M D. . .	158 35	
B. D. Davis, M. D. . . .	41 65	
P. M. Fitzsimons, M. D. . .	158 35	
Wm. E. Fleet, M. D. . . .	158 35	
C. M. Hutchinson, M. D. . .	41 65	
T. J. Leahy, M. D. . . .	158 35	
E. A. McCarthy, M. D. . . .	100 00	
J. P. Nelligan, M D. . . .	158 35	
W. A. Putnam, M. D. . . .	41 65	
N. V. Shannon, M. D. . . .	41 65	
Bacteriologists: —		
E. A. Darling, M. D. . . .	228 21	
J. R. Sennott, M. D. . . .	851 79	
Driver, R. M. O'Brien . . .	814 77	
Inspector of provisions: —		
Jos. L. Johnson	578 08	
Plumber, John McCormick . .	950 00	
Total		11,956 85
Excess of Expenditures over Appropriation . .		$656 85
Transfer to this Department from Health Department, Small-pox Hospital		700 00
		$43 15
Transfer from this Department to Contingent Fund .		43 15

GENERAL EXPENSES.

Appropriation			$7,500 00
	EXPENDED.		
For advertising: —			
Cambridge Chronicle Co. . .	$1 45		
Cambridge Democrat . . .	38 50		
		$39 95	
Atlas, G. W. Bromley & Co. . .		30 00	
Board and care, Cambridge Hospital		3,469 60	
Boxes, Place Box Co. . . .		14 00	
Amounts carried forward . . .		$3,553 55	$7,500 00

Protection of Life, Health and Property — Continued.

HEALTH DEPARTMENT, GENERAL EXPENSES — Continued.

Amounts brought forward . .		$3,553 55	$7,500 00
For carriage hire :—			
John J. Corkery	$13 00		
Geo E. Francis	21 00		
John R. Kenney	7 00		
		41 00	
Car tickets :—			
Boston Elevated Railway Co. .		450 00	
Cash expended for burying animals :—			
Edwin Farnham		91 50	
Directories :—			
W. A. Greenough & Co. . . .	$3 50		
Sampson, Murdock & Co. . .	6 00		
		9 50	
Expert testimony, F. C. Witherell .		10 00	
Expressage :—			
Sawin's Express	$8 25		
Sundry persons	2 85		
		11 10	
Hardware, tools and supplies :—			
E. T. Bynner	$9 75		
Moynahan & Co.	26 95		
Yerxa & Yerxa	5 30		
Sundry persons	8 05		
		50 05	
Harness and repairs :—			
James Curry	$11 40		
Hugh McCaffrey	11 85		
		23 25	
Horse board and storage :—			
G. F. Whiting & Co. . . .		360 00	
Horseshoeing :—			
W. F. Garrett	$21 00		
John F. Gurry & Sons . . .	19 00		
		40 00	
Medical aid :—			
City of Beverly	$301 72		
City of Boston	2,206 86		
City of Somerville	43 70		
Town of Brookline . . .	302 39		
		2,854 67	
Medical supplies and apparatus and repairs :—			
J. H. Fitzgerald	$43 65		
Harvard Co-operative Society .	13 81		
Sundry persons	7 49		
		64 95	
Medicines, drugs, etc :—			
Billings & Stover	$4 15		
J. A. & W. Bird & Co. . . .	61 11		
Amounts carried forward . . .	$65 26	$7,559 57	$7,500 00

Protection of Life, Health and Property — Continued.

HEALTH DEPARTMENT, GENERAL EXPENSES — Concluded.

Amounts brought forward . .	$65 26	$7,559 57	$7,500 00
For A. Cunningham	155 63		
W. C. Wright	100 70		
Sundry persons	6 26		
		327 85	
Nurse, Ellen F. Daly		22 00	
Repairing ambulance, Chas. Waugh & Co.		38 65	
Repairing wagon, T. H Kneeland .		29 25	
Sanitary repairs, H. L. Rose . .		11 34	
Serving notices :—			
W. Y. Gross	$3 00		
John F. Kelley, Treas. . . .	36 12		
P. F. Tierney	3 50		
Sundry persons	5 71		
		48 33	
Sign boards, John Quin & Son . .		9 91	
Stationery, printing, etc. :—			
Cambridge Chronicle Co. . .	$24 00		
Carter's Ink Co.	9 00		
City Messenger Department . .	25 84		
Cotton & Gould	24 23		
J. A. Cummings Printing Co. .	20 16		
J. Frank Facey	142 15		
Globe-Wernicke Co. . . .	12 18		
Sundry persons	3 38		
		260 94	
Sundries		12 18	
Telephone service		151 90	
Use of ambulance, Chas. Waugh & Co.		36 00	
Use of horse and buggy: —			
G. F. Whiting & Co. . . .		45 50	
Total			8,553 42
Excess of Expenditures over Appropriation . .			$1,053 42
Transfers to this Department :—			
From Small-pox Hospital . .		$300 00	
From Temporary Hospital . .		765 00	
			1,065 00
			$11 58
Transfer from this Department to Contingent Fund .			11 58

TEMPORARY HOSPITAL.

Appropriation			$9,000 00
EXPENDED.			
For salaries of : —			
Physicians : —			
David C. Dow, M. D. . . .	$253 57		
Felix F. McGirr, M. D. . .	946 43		
Amounts carried forward . . .	$1,200 00		$9,000 00

Protection of Life, Health and Property — Continued.

HEALTH DEPARTMENT, TEMPORARY HOSPITAL — Continued.

Amounts brought forward			$9,000 00
For Matron, Mildred Sanborn	$780 00		
Nurses: —			
Alice Hawkins	500 00		
Melinda Hodgins	500 00		
Olive Inch	520 00		
Minnie A. Simpson	500 00		
Cooks	306 00		
House-man, James Reagan	728 00		
House-servant	85 71		
Laundress	305 40		
		$5,425 11	
Clothing and dry goods: —			
J. H. Corcoran & Co.	$107 08		
Jordan, Marsh Co.	27 84		
		134 92	
Fuel, Metropolitan Coal Co.		258 55	
Furniture, furnishings and household supplies: —			
Jordan, Marsh Co.	$30 47		
Worcester Bros.	29 11		
		59 58	
Hardware, tools and supplies: —			
Moynahan & Co.	$16 40		
Sundry persons	2 74		
		19 14	
Heating apparatus and repairs: —			
Brock & Eaton	$12 55		
Moynahan & Co.	14 32		
		26 87	
Ice, Fresh Pond Ice Co.		63 37	
Laundry work: —			
Julia Brogan	$12 75		
Julia Murphy	20 25		
		33 00	
Lighting, Cambridge Gas Light Co.		105 10	
Loam, etc., Patrick Shea		10 00	
Medical apparatus and supplies: —			
J. A. E. Sellar		26 50	
Medicines, drugs, etc.: —			
American Oxygen Association	$5 00		
A. Cunningham	17 45		
J. H. Fitzgerald	33 31		
John Toye	111 40		
		167 16	
Professional services: —			
Wm. D. Swan, M. D.		5 00	
Scales, Whitall-Tatum Co.		3 75	
Amounts carried forward		$6,338 05	$9,000 00

Protection of Life, Health and Property — Continued.

HEALTH DEPARTMENT, TEMPORARY HOSPITAL — Concluded.

Amounts brought forward		$6,338 05	$9,000 00
For subsistence supplies: —			
Aylward & Gaylord	$183 22		
Edward P. Clarke	113 85		
Wm. T Gibson	238 00		
C. Jenness	154 59		
B. Kelleher	130 39		
Alexander Millan	26 31		
G. P. O'Brien	170 64		
W. W. Seavey	107 06		
Chas. O. Stickney	135 25		
Arthur Ward	120 20		
Woodman & Milliken	174 36		
Yerxa & Yerxa	206 52		
		1,760 39	
Sundries		6 25	
Telephone service		58 95	
Total			8,163 64
Surplus of Appropriation			$836 36
Transfers from this Department: —			
To Health Department, General Expenses		$765 00	
To Contingent Fund		71 36	
			836 36

SMALL-POX HOSPITAL.

Appropriation	$8,000 00
Revenue appropriated	2,869 20
	$10,869 20

Department Receipts. Carried to Credit of the Department.

For care of sick, by cities and towns	$489 56
Expenses of contagious disease: —	
Commonwealth of Massachusetts	2,379 64
	$2,869 20

EXPENDED.

For aid: —			
City of Somerville	$465 00		
City of Springfield	55 71		
Town of Arlington	22 16		
Town of Belmont	1,795 20		
Town of Watertown	705 95		
		$3,044 02	
Carriage hire: —			
Cambridge Coach Co.	$2 00		
G. F. Whiting & Co.	42 00		
		44 00	
Amounts carried forward		$3,088 02	$10,869 20

Protection of Life, Health and Property — Continued.

HEALTH DEPARTMENT, SMALL-POX HOSPITAL — Continued.

Amounts brought forward		$3,088 02	$10,869 20
For care of smallpox patients: —			
David D. Brough, M. D.		295 00	
Cleaning vaults, H. G. Kennedy		10 00	
Damages: —			
Philip A. McDonald	$50 00		
Henry Vanness	125 00		
		175 00	
Examining children for vaccination marks: —			
Frank F. Carr, M. D.	$30 00		
J. F. Fair, M. D.	30 00		
		60 00	
Examining title, Wm. V. Thompson		25 00	
Fuel: —			
P. F. Gayton & Co.	$19 95		
Metropolitan Coal Company	79 15		
Geo. Stevenson	2 40		
		101 50	
Household services: —			
John B. Griffin	$569 98		
Benjamin Sawyer	175 70		
Nelson Willis	259 27		
		1,004 95	
Ice, Cambridge Ice Co.		7 16	
Land and damage, Patrick Keenan		3,000 00	
Laundress, Anna Duffus		164 99	
Medicines, drugs and supplies: —			
Elie H. La Pierre	$31 09		
Sundry persons	4 00		
		35 09	
Nurses: —			
Emma Griep	$184 28		
Mary J. Wood	484 28		
		668 56	
Rent, John F. O'Brien		208 00	
Repairing ambulance: —			
Chas. Waugh & Co.		89 75	
Subsistence supplies: —			
Edw. P. Clarke	$52 38		
Wm. T. Gibson	60 22		
C. Jenness	26 19		
B. Kelleher	39 84		
Arthur Ward	144 74		
F. C. Witherell	9 88		
Yerxa & Yerxa	109 65		
		442 90	
Sundries		7 97	
Amounts carried forward		$9,383 89	$10,869 20

Protection of Life, Health and Property — Continued.

HEALTH DEPARTMENT, SMALL-POX HOSPITAL — Concluded,

Amounts brought forward . .	$9,383 89	$10,869 20
For use of horse and buggy :—		
G. F. Whiting & Co.	247 00	
Total		9,630 89
Surplus of Appropriation		$1,238 31
Transfers from this Department :—		
To Health Department, Salaries	$700 00	
To Health Department, General Expenses . .	300 00	
To Contingent Fund	238 31	
		1,238 31

INSPECTION OF MILK AND VINEGAR. (2.4)

SALARIES.

Appropriation		$1,360 00
EXPENDED.		
For salaries of :—		
Inspectors :—		
Wm. C. Lane	$545 00	
Philip P. Sharples	355 00	
Deputies :—		
Edw. W. Abbott	281 33	
John F. Wheeler	153 32	
Total		1,334 65
Surplus of Appropriation		$25 35
Transfer from this Department to Contingent Fund .		25 35

GENERAL EXPENSES.

Appropriation			$320 00
DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.			
For milk licenses (10.6) . . .	$124 00		
EXPENDED.			
For apparatus and supplies :—			
Eimer & Amend	$6 65		
Whitall, Tatum Co. . . .	13 93		
		$20 58	
Bag, H. A. Winship		8 50	
Car tickets : —			
Boston Elevated Railway Co. .		80 00	
Amounts carried forward . . .		$109 08	$320 00

Protection of Life, Health and Property — Continued.

INSPECTION OF MILK AND VINEGAR, GENERAL EXPENSES — Concluded.

Amounts brought forward . .		$109 08	$320 00
Chemicals :—			
J. H. Fitzgerald	$4 75		
E. & F. King & Co.	18 17		
		22 92	
Expressage, Sawin's Express . .		4 34	
Polariscope and tubes, Sherer Bros. .		55 75	
Printing :—			
Cambridge Chronicle Co. . .	$16 50		
J. A. Cummings Printing Co. .	9 91		
J. Frank Facey	23 00		
		49 41	
Samples, Philip P. Sharples . .		2 85	
Stationery, City Messenger Dept. .		11 35	
Stenographic report, H. P. Hall .		5 40	
Sundries		4 10	
Total			265 20
Surplus of Appropriation			$54 80
Transfer from this Department to Contingent Fund .			54 80

INSPECTOR OF ANIMALS. (2.4)

Appropriation			$800 00
EXPENDED.			
For salary of :—			
Inspector of Animals, C. E. Hadcock		$700 00	
Medicines, drugs, etc. :—			
Walter A. Claflin	$56 95		
A. Cunningham	36 70		
E. H. La Pierre	60		
		94 25	
Total			794 25
Surplus of Appropriation			$5 75
Transfer from this Department to Contingent Fund .			5 75

CEMETERY DEPARTMENT. (2.5)

SALARIES AND LABOR.

Appropriation			$14,000 00
EXPENDED.			
For salaries of :—			
Superintendents :—			
Chas. S. Childs	$399 99		
Geo. D. Ford	972 15		
		$1,372 14	
Amounts carried forward . . .		$1,372 14	$14,000 00

Protection of Life, Health and Property — Continued.

CEMETERY DEPARTMENT, SALARIES AND LABOR — Concluded.

Amounts brought forward		$1,372 14	$14,000 00
For bookkeepers :—			
John J. McKenzie	$729 64		
J. Watson Taylor	210 00		
		939 64	
Clerk, Edward J. Brandon		100 00	
Foreman, Henry C. Hobbs		1,006 50	
Laborers		10,555 64	
Total			13,973 92
Surplus of Appropriation			$26 08
Transfer to Contingent Fund			26 08

GENERAL EXPENSES.

Appropriation $2,000 00

DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.

For burials	$4,146 00
Care	2,162 77
Chapel	9 00
Foundations	1,190 55
Grading and sodding	226 43
Interest on Cemetery Fund	2,184 68
Myrtle grave	5 00
Repairs	29 20
Sales	6,268 02
Slate and brick graves	389 00
Sundries	280 34
	$16,890 99

EXPENDED.

For binding, J. H. H. McNamee Co.		$3 00	
Bricks :—			
J. Delaney	$34 00		
N. E. Brick Co.	9 00		
		43 00	
Brooms, Stephen Adams		3 00	
Canvas, Jas. Martin & Son		31 36	
Carpentry :—			
F. B. Furbish	$22 66		
Gus Wilson	89 40		
		112 06	
Carriage hire :—			
John J. Donahue	$25 00		
Geo. E. Francis	5 00		
Frank P. Merrill	2 00		
Whiting & Prescott	17 00		
		49 00	
Car tickets :—			
Boston Elevated Railway Co.		20 00	
Amounts carried forward		$261 42	$2,000 00

Protection of Life, Health and Property — Continued

CEMETERY DEPARTMENT, GENERAL EXPENSES — Continued.

Amounts brought forward . .		$261 42	$2,000 00
For decorating, N. E. Decorating Co. .		24 00	
Directory, W. A. Greenough & Co. .		7 00	
Disinfectant, C. W. Lerned & Co. .		14 40	
Fuel, Metropolitan Coal Co. . .		106 23	
Furniture, Orpin Bros. . . .		43 50	
Hardware, tools and repairs, and supplies :—			
Bigelow & Dowse	$5 85		
Jos. Breck & Sons	44 00		
E. T. Bynner	27 86		
Peter J. Carmichael . . .	55 02		
T. H. Kneeland	15 62		
L. A. Stingel	67 04		
Daniel J. Sullivan	3 00		
Sundry persons	5 70		
		224 09	
Harness and repairs :—			
John J. Hawkes	$7 00		
Jos. A. Ryan	6 00		
		13 00	
Hay, grain, etc., E. R. Luke & Co. .		97 28	
Heating apparatus and repairs :—			
D. J. Wild & Co.		12 90	
Horse, L. H. Brockway . . .		200 00	
Horseshoeing, Wm. Balmer . .		29 00	
Linoleum, Jordan, Marsh & Co. .		11 90	
Lumber and cement : —			
Geo. W. Gale Lumber Co. . .	$49 10		
Wm. H. Wood & Co. . . .	45 50		
		94 60	
Manure, Patrick J. Curley . .		156 00	
Marking stones : —			
Alex. McDonald & Son . . .		26 25	
Paints, oils, etc., W. J. Edwards .		25 46	
Plants, P. O'Brien & Son . . .		75 50	
Posts, Broadway Iron Foundry Co .		38 00	
Refund, Mrs. M. Todhunter . .		15 00	
Removing brown tail moths : —			
Frederick B Shattuck . . .		115 00	
Repairing conductor : —			
D. J. Wild & Co.		5 90	
Slate, Chas. E. Hall & Co. . .		38 97	
Amounts carried forward . . .		$1,635 40	$2,000 00

Protection of Life, Health and Property — Continued.

CEMETERY DEPARTMENT, GENERAL EXPENSES — Concluded.

Amounts brought forward		$1,635 40	$2,000 00
For sods: —			
James Gray	$37 50		
Jeremiah Sullivan	37 50		
		75 00	
Sprinkling: —			
Street Department watering		51 46	
Stamp: —			
Boston Stencil & Stamp Works		2 00	
Stationery, printing, etc.: —			
Amee Bros.	$24 14		
Caustic-Claflin Co.	7 00		
City Messenger Department	17 45		
Cotton & Gould	22 00		
J. A. Cummings Printing Co.	43 35		
J. Frank Facey	58 75		
Thos. Groom & Co.	7 95		
Edw. W. Wheeler	2 75		
		183 39	
Stock and labor: —			
Water Works Department		4 37	
Stone, Jeremiah Sullivan		174 00	
Teaming gravel, etc.: —			
Jeremiah Sullivan		319 74	
Telephone service		65 84	
Vaults, Blue Mountain Slate Co.		88 00	
Total			2,599 20
Excess of Expenditures over Appropriation			$599 20
Transfer to this Department from Contingent Fund			600 00
Transfer from this Department to Contingent Fund			80

PUBLIC PROPERTY DEPARTMENT.

INSPECTION OF BUILDINGS. SALARIES AND CLERICAL ASSISTANCE. (2.6)

Appropriation			$5,500 00
EXPENDED.			
For salaries of: —			
Superintendents of Buildings: —			
Wm. H. Gray	$249 99		
Thos. F. Tracy	1,750 01		
		$2,000 00	
Amounts carried forward		$2,000 00	$5,500 00

Protection of Life, Health and Property — Continued.

PUBLIC PROPERTY DEPARTMENT, INSPECTION OF BUILDINGS, SALARIES AND CLERICAL ASSISTANCE — Concluded.

Amounts brought forward		$2,000 00	$5,500 00
For inspectors :—			
J. W. Emery	$1,200 00		
W. A. Ford	500 00		
L. D. Garfield	1,000 00		
C. H. M. Hunnewell	307 20		
		3,007 20	
Clerks :—			
Grace Dame	$1 88		
Lillian W. Hyde	62 00		
Wm. H. Sheridan	329 88		
		393 76	
Total			5,400 96
Surplus of Appropriation			$99 04
Transfer from this Department to Contingent Fund			99 04

GENERAL EXPENSES.

Appropriation			$850 00
EXPENDED.			
For advertising :—			
Cambridge Chronicle Co.	$5 98		
Cambridge Press	8 00		
		$13 98	
Atlas, G. W. Bromley & Co.		30 00	
Binding, J. H. H. McNamee Co.		20 50	
Bicycle repairs :—			
E. H. McDuffee	$9 15		
Sundry persons	2 20		
		11 35	
Care and repair of tower clocks :—			
Chas. H. Chandler, Treasurer	$39 00		
A. K. Jones	52 00		
J. B. Mace	26 00		
John W. Moore	12 50		
A. S. Thayer	12 50		
		142 00	
Car tickets :—			
Boston Elevated Railway Co.		110 00	
Furniture, Globe-Wernicke Co.		29 70	
Horse board, Whiting & Prescott		25 00	
Horseshoeing, W. F. Garrett		6 00	
Photographs, Jos. L Gomes		5 25	
Stamps :—			
H. C. Dimond & Co.	$2 54		
Pneumatic Hand Stamp Co.	3 16		
		5 70	
Amounts carried forward		$399 48	$850 00

Protection of Life, Health and Property — Continued.

PUBLIC PROPERTY DEPARTMENT, GENERAL EXPENSES — Concluded.

Amounts brought forward . .		$399 48	$850 00
For stationery, printing, etc. :—			
C S. Binner Corporation . .	$19 95		
Cambridge Chronicle Co. . .	6 00		
City Messenger Department . .	54 09		
Coburn Stationery Co. . . .	7 50		
Cotton & Gould	13 50		
J. Frank Facey	93 50		
Chas. H. Thurston	6 20		
		200 74	
Sundries		6 85	
Telephone service		84 70	
Use of horse and buggy :—			
Geo E. Francis	$2 00		
Whiting & Prescott . . .	10 00		
		12 00	
Total			703 77
Surplus of Appropriation			$146 23
Transfer from this Department to Contingent Fund .			146 23

PLUMBERS' EXAMINERS DEPARTMENT. (2.6)

Appropriation			$100 00
DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.			
For licenses (10.6)	$31 00		
EXPENDED.			
For examinations, John Crawford .		$78 50	
Printing, J Frank Facey . . .		7 50	
Total			86 00
Surplus of Appropriation			$14 00
Transfer from this Department to Contingent Fund .			14 00

SEALER OF WEIGHTS AND MEASURES.

SALARIES. (2.6)

Appropriation			$1,850 00
EXPENDED.			
For salaries of Sealers :—			
A. S. K. Clark	$432 78		
Geo H. Dinan	567 22		
		$1,000 00	
Deputy Sealer, J. C. Connors . .		750 00	
Amounts carried forward . . .		$1,750 00	$1,850 00

Protection of Life, Health and Property — Continued.

SEALER OF WEIGHTS AND MEASURES, SALARIES — Concluded.

Amounts brought forward . .		$1,750 00	$1,850 00
For assistants: —			
E. A. Counihan, Jr. . . .	$30 02		
Daniel Sweeney	69 60		
		99 62	
Total			1,849 62
Surplus of Appropriation			38
Transfer from this Department to Contingent Fund .			38

GENERAL EXPENSES. (2.6)

Appropriation	$650 00

DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.

For fees for sealing, A. S. K. Clark .	$801 65	
Fees for weighing: —		
Lechmere Square . $68 52		
North Cambridge . 41 09		
	109 61	
	$911 26	

EXPENDED.

For car tickets: —			
Boston Elevated Railway Co. .		$20 00	
Cash expended, A. S. K. Clark . .		2 00	
Expressage		2 15	
Hardware, tools and supplies: —			
Brock & Eaton	$28 81		
Pittsburg Plate Glass Co. . .	4 50		
Sundry persons	7 24		
		40 55	
Harness and repairs, and horse clothing: —			
L. C. Chase & Co.	$7 58		
James Curry	12 20		
Owen Doherty	19 50		
Sundry persons	1 15		
		40 43	
Horse board, Street Department .		216 00	
Horseshoeing, Street Department .		14 50	
Marking acid: —			
Malden Chemical Co. . .	$3 50		
Malden Specialty Co. . . .	24 50		
		28 00	
Making signs, Street Department .		3 85	
Measures, Herman Strater & Sons .		2 10	
Amounts carried forward . . ,		$369 58	$650 00

Protection of Life, Health and Property — Continued.

SEALER OF WEIGHTS AND MEASURES, GENERAL EXPENSES — Concluded.

Amounts brought forward . .		$369 58	$650 00
For repairing scales, etc. :—			
Fairbanks Co. . . .	$31 54		
C. Mahoney	3 07		
		34 61	
"Revised Laws," Amee Bros. . .		7 00	
Seals, etc. :—			
R. Woodman Mfg. and Supply Co.		13 60	
Stamps and brands :—			
Boston Stencil & Stamp Works .		28 05	
Stationery, printing, etc. :—			
Caustic-Claflin Co.	$26 45		
City Messenger Department . .	10 84		
Chas. H. Thurston	33 93		
Sundry persons	4 08		
		75 30	
Telephone service		16 60	
Typewriting, A. H. Edgerly . .		3 00	
Wagon repairs, T. H. Kneeland .		79 75	
Total			627 49
Surplus of Appropriation			$22 51
Transfer from this Department to Contingent Fund .			22 51

PUBLIC PROPERTY DEPARTMENT.

ARMORY ON BEECH STREET. (2.7)

Appropriation			$100 00
EXPENDED.			
For electrical work, Elec. Dept , Wires		$1 60	
Fuel, Metropolitan Coal Co. . .		71 48	
Lighting, Cambridge Gas Light Co. .		24 50	
Total			97 58
Surplus of Appropriation			$2 42
Transfer from this Department to Contingent Fund .			2 42

RIFLE RANGE. (2.7)

Appropriation			$250 00
EXPENDED.			
For care and repair of Rifle Range :—			
Anson J. Webb		$ 35 88	
Amounts carried forward . . .		$35 88	$250 00

Protection of Life, Health and Property — Concluded.

PUBLIC PROPERTY DEPARTMENT, RIFLE RANGE — Concluded.

Amounts brought forward . .		$35 88	$250 00
Carpentry, C. H. Callahan . .		218 07	
Carriage hire, G. F. Whiting & Co. .		6 00	
Electrical work :—			
Thos. J. Daly	$65 18		
Electrical Department, Wires .	1 60		
		66 78	
Total			326 73
Excess of Expenditures over Appropriation . .			$76 73
Transfer from Contingent Fund to this Department .			200 00
Transfer to Contingent Fund from this Department .			$123 27

3. PUBLIC CHARITY AND CORRECTION.

3.4 ALMSHOUSES.

OVERSEERS OF THE POOR DEPARTMENT.

FARM. LABOR. (3.4)

Appropriation		$4,000 00
EXPENDED.		
For labor on farm: —		
Farmer, James Walsh	$782 50	
Employees	3,430 05	
Total		4,212 55
Excess of Expenditures over Appropriation		$212 55
Transfer from Contingent Fund to this Department		212 55

FARM. SUPPLIES.

Appropriation			$800 00
DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.			
For farm produce	$3,922 64		
EXPENDED.			
For baskets, Fred. Theise		$1 50	
Harness and repairs, Jos. A. Ryan		23 60	
Hay, grain, etc.: —			
Clark Bros.	$155 45		
J. Cushing & Co.	45 97		
L. G. Stone & Co.	7 63		
Geo. R Wheeler	40 70		
		249 75	
Horseshoeing, Wm. Bell		7 50	
Lathyarn, Lincoln-Dillaway Co.		5 50	
Lumber: —			
John S. Clary Lumber Co.	$25 98		
Geo. W. Gale Lumber Co.	6 00		
		31 98	
Manure, Street Department		160 00	
Oil, putty, etc., Wood Bros.		12 45	
Pigs, Cutter Bros.		90 00	
Plants, seeds, etc.: —			
Jos. Breck & Sons	$2 25		
C. F. Penney	20 25		
Schlegel & Fottler Co.	65 63		
		88 13	
Rent. Mercantile Wharf Corporation		40 00	
Repairing wagons, J. E. Fitzgerald		13 50	
Stems, Breslin & Campbell		1 00	
Amounts carried forward		$724 91	$800 00

Public Charity and Correction — Continued.

OVERSEERS OF THE POOR DEPARTMENT, FARM. SUPPLIES—Concluded.

Amounts brought forward . .		$724 91	$800 00
For tools: —			
Jos. Breck & Sons	$28 10		
Johnson & Stokes	40 35		
		68 45	
Wagon cover, Geo. L. Hamblen .		6 50	
Total			799 86
Surplus of Appropriation			14
Transfer to Contingent Fund from this Department .			14

CITY HOME. SALARIES. (3.4)

Appropriation			$7,000 00
EXPENDED.			
For salaries of: —			
Superintendents: —			
M. L. Eldridge	$663 46		
C. E. Goodrow	673 63		
		$1,337 09	
Assistant superintendent, S. F. Norris		780 00	
Sundry house employees . . .		4,821 85	
Nurses: —			
Mrs. Georgia Brown . . .	$3 43		
John H. Haley	10 00		
		13 43	
Organist, C. M. Walker . . .		100 00	
Labor and general work: —			
John Casey	$3 00		
Wm. Clark	16 50		
Jennie Donovan	43 42		
Daisy Dupee	16 00		
Michael Martin	119 62		
Abbie A. Smith	35 00		
		233 54	
Total			7,285 91
Excess of expenditures over Appropriation			$285 91
Transfer from Contingent Fund to this Department			285 91

CITY HOME. GENERAL EXPENSES.

Appropriation			$11,000 00
DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.			
For barrels	$22 26		
Board	667 03		
Coal	426 83		
Amounts carried forward . . .	$1,116 12		$11,000 00

Public Charity and Correction — Continued.

OVERSEERS OF THE POOR DEPARTMENT, CITY HOME. GENERAL EXPENSES — Continued.

Amounts brought forward . .	$1,116 12		$11,000 00
For grease and bones	45 02		
Old iron	19 95		
Rags	4 55		
	$1,185 64		

EXPENDED.

For auditing books, Clarence A. Rogers		$25 00	
Board, Carney Hospital . . .		34 28	
Boots, shoes and repairs :—			
Clark, Hutchinson Co. . . .	$12 00		
F. X. Massé	8 00		
Massachusetts State Prison . .	60 00		
Wm. Myers	73 15		
John P. Quinn	4 05		
S. Rosenberg Co.	4 30		
A. G. Swett	44 85		
		206 35	
Burials, H. D. Litchfield . . .		44 05	
Burial fees, Cemetery Department .		25 00	
Car tickets :—			
Boston Elevated Railway Co. .		90 00	
Cash expended, M. L. Eldridge :—			
Car fares to Fairhaven . . .	$5 80		
Cash to inmates	20 75		
Christmas greens and confectionery	14 38		
Postage	7 00		
Services of clergymen . . .	52 00		
Services of housemaid . . .	5 00		
Sundries	14 24		
		119 17	
Cash expended, C. E Goodrow :—			
Cash to inmates	$40 55		
Clothing	1 80		
Crockery	1 50		
Range	5 00		
Services of clergymen . . .	44 00		
Stationery	1 35		
Sundries	13 44		
		107 64	
Clock repairs, Sven Nelson . .		4 10	
Clothing, dry goods and bedding :—			
Brown, Durrell & Co. . . .	$203 30		
Burton, Pierce Co.	29 25		
N. H. Coleman & Sons . . .	4 50		
J. H. Corcoran & Co. . . .	2 98		
Amounts carried forward . . .	$240 03	$655 59	$11,000 00

Public Charity and Correction — Continued.

OVERSEERS OF THE POOR DEPARTMENT, CITY HOME. GENERAL EXPENSES — Continued.

Amounts brought forward	$240 03	$655 59	$11,000 00
For Farley, Harvey & Co.	43 23		
D. W. Hyde & Co	5 50		
Jordan, Marsh Co.	88 09		
T. H. Lane & Co.	16 50		
F. X. Massé	10 35		
Massachusetts State Prison	120 00		
L. Morse & Co.	10 00		
		533 70	
Concord wagon, Stephen J. Moran		150 00	
Directory, W. A. Greenough & Co.		3 50	
Duplex pump, Geo. F. Blake Mfg. Co.		53 15	
Engrossing resolutions :—			
Patrick Crowley		5 00	
Expressage, Bancroft's Express		15 40	
Fuel, Metropolitan Coal Co.		2,192 66	
Furniture, furnishings and household supplies :—			
Dover Stamping Co.	$12 59		
Farley, Harvey & Co.	2 00		
French, Mitchell, Woodbury Co.	10 67		
D. J. Green & Co.	26 90		
D. W. Hyde & Co.	1 50		
Jordan, Marsh Co.	23 49		
C. B. Moller	5 00		
Paine Furniture Co.	9 00		
A. W. Wheeler & Co.	30 00		
Whittier Woodenware Co.	16 08		
		137 23	
Hardware, tools and repairs and supplies : —			
G. W. Burditt	$9 00		
E. T. Bynner	39 99		
A. Lubbe	22 45		
F. X. Massé	14 67		
Walworth Manufacturing Co.	37 20		
Sundry persons	7 58		
		130 89	
Horse clipping, Fred D. Norton		2 50	
House repairs : —			
Heating apparatus and repairs : —			
Wm. Campbell & Co.	$38 79		
Campbell Iron Works	34 73		
W. Haley	11 00		
Walker & Pratt Manufacturing Co.	22 60		
		107 12	
Plumbing : —			
W. Haley	$48 35		
John H. Stevens & Co.	4 13		
		52 48	
Roof repairs, George Douglass		75 33	
Amounts carried forward		$4,114 55	$11,000 00

Public Charity and Correction — Continued.

OVERSEERS OF THE POOR DEPARTMENT, CITY HOME. GENERAL EXPENSES — Continued.

Amounts brought forward		$4,114 55	$11,000 00
For ice, Cambridge Ice Co.		165 75	
Insecticide, R. S. Downe		7 50	
Labor, Street Department		4 00	
Ladder, C. W. H. Moulton & Co.		15 00	
Lighting, Cambridge Gas Light Co.		199 60	
Lime, Clark Bros.		5 00	
Lumber, John S. Clary Lumber Co.		3 12	
Medicines, drugs, chemicals, etc. : —			
E. H. LaPierre	$115 55		
Samuel H. Talbot	1 00		
J. A. Tupper	155 94		
		272 49	
Medical and surgical apparatus and instruments :—			
W. H. Phelps & Co.	$6 00		
Sundry persons	1 31		
		7 31	
Moulding, H. A. Scranton		3 00	
Oils, paints, etc. :—			
Carpenter-Morton Co.	$28 66		
Geo. L. Vocell	5 67		
Wood Bros.	2 00		
W. A. Wood Co.	7 16		
		43 49	
Postage, City Messenger Department		3 00	
Rubber goods :—			
Robert Josselyn	$2 62		
C. S. Knowles	6 70		
		9 32	
Sealing :—			
Sealer of Weights and Measures		2 01	
Soap, powder and toilet articles :—			
Brown, Durrell & Co.	$8 84		
India Alkali Works	18 36		
Rand & Byam	15 98		
Chas. R. Teele	115 00		
		158 18	
Stamps, Allen Bros.		2 35	
Station dials and repairing watch clock :—			
Hersey Mfg. Co.		30 92	
Stationery, printing, etc. :—			
F. W. Barry, Beale & Co.	$8 80		
City Messenger Department	4 00		
Cotton & Gould	26 90		
		39 70	
Subscriptions, Jas. W. Hunnewell		22 39	
Sulpho-Napthol, Sulpho-Napthol Co.		20 00	
Amounts carried forward		$5,128 68	$11,000 00

Public Charity and Correction — Continued.

OVERSEERS OF THE POOR DEPARTMENT, CITY HOME. GENERAL EXPENSES — Concluded.

Amounts brought forward		$5,128 68	$11,000 00
For subsistence supplies:—			
Boston Packing and Provision Co.	$60 69		
Bower and Bartlett	99 08		
Bowman and Vaughan	99 36		
Boyd, Dalton & Co.	399 55		
Brown, De Loriea & Co	15 99		
J. A. Bryant & Co.	4 16		
Henry Callender & Co.	111 13		
Willard N. Chamberlain	204 38		
Geo. H. Chessman & Co.	7 50		
B. P. Clark & Co.	8 25		
S. L. Clark & Co.	10 75		
Cobb, Bates & Yerxa	246 02		
Eastern Salt Co.	22 90		
R. S. Edwards & Co.	303 58		
Fleischmann & Co.	7 80		
Gillmore & Co.	187 96		
Globe Co.	103 50		
J. A. Hathaway & Co.	1,602 10		
Hazeltine & Co.	67 31		
Home Mills Cereal Co.	30 00		
Walter H. Keith, Son & Co.	18 00		
W. H. Lerned & Son	31 92		
A. J. Littlefield & Co.	136 73		
A. J. Lovell & Co.	104 10		
McPherson Bros.	10 25		
J. D. Mead & Co.	6 25		
Middlesex Produce Co.	76 80		
National Biscuit Co.	48 79		
John P. Nelligan	368 60		
New England Beef Co.	10 60		
Fred D Norton	307 16		
Oakdale Mfg. Co.	78 30		
C. O'Brien	163 74		
Old Colony Compressed Yeast Co.	21 12		
A. G. Patch & Co.	6 00		
J. H. Pierce & Co.	112 16		
F Putnam & Co.	270 00		
Geo E. Richardson & Co.	8 02		
Rogers & Sullivan Co.	113 47		
Sands, Taylor & Wood	139 00		
Fred'k C. Small & Co.	77 47		
John P. Squire & Co.	47 63		
Sundry persons	2 53		
Swan, Newton & Co.	164 19		
W. T. Warren	4 38		
David Whiting & Sons	904 32		
Austin Young & Co.	4 06		
		6,827 60	
Telephone service		34 25	
Total			11,990 53
Excess of Expenditures over Appropriation			$990 53
Transfer from Contingent Fund to this Department			990 53

Public Charity and Correction — Continued.

3.5. OUT-DOOR RELIEF.

OUTSIDE AID. SALARIES AND CLERICAL ASSISTANCE. (3.5)

Appropriation		$3,600 00
EXPENDED.		
For salaries of: —		
Secretary, D. P. Muzzey	$1,500 00	
Agent, H. K. Estabrook	598 78	
Driver, M. J. O'Reagan	375 50	
Clerk, Addie M. Benson	704 50	
Total		3,178 78
Surplus of Appropriation		$421 22
Transfer to Contingent Fund from this Department		421 22

OUTSIDE AID. GENERAL EXPENSES. (3.2—3.5)

Appropriation			$38,000 00
DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.			
For Aid	$364 05		
Ambulance	6 00		
Board	212 29		
Burials	84 90		
Clothing	1 10		
Fuel	45 90		
Support	1,752 05		
Transportation	6 00		
Truss	4 00		
	$2,476 29		
EXPENDED.			
For aid to sundry persons, as per pay-roll		$270 00	
By cities and towns: —			
City of Boston	$1,696 18		
Chelsea	61 50		
Everett	188 12		
Fall River	74 05		
Haverhill	99 90		
Lawrence	4 00		
Malden	126 86		
Melrose	6 00		
Newton	21 00		
Salem	86 58		
Somerville	328 04		
Springfield	50 07		
Woburn	4 36		
Worcester	38 00		
Amounts carried forward	$2,784 66	$270 00	$38,000 00

Public Charity and Correction — Continued.

OVERSEERS OF THE POOR DEPARTMENT, OUTSIDE AID. GENERAL EXPENSES — Continued.

Amounts brought forward	$2,784 66	$270 00	$38,000 00
For Town of Brookline	41 63		
Cohasset	78 24		
Hudson	5 00		
Norwood	6 39		
Salisbury	67 63		
		2,983 55	
Ambulance fees :—			
Chas. W. Dailey	$48 00		
Geo. E. Francis	5 00		
Police Department	150 00		
		203 00	
Binding, David Farquhar		1 10	
Board and care at :—			
Boston City Hospital	$142 85		
Cambridge Hospital	550 09		
Carney Hospital	506 43		
Alfred Challis's	25 00		
Children's Hospital	35 00		
Children's Mission	54 00		
Chester D. Holmes's	91 00		
Holy Ghost Hospital	29 00		
Hospital Cottages	181 05		
Mass. Hospital for Epileptics	2,313 61		
Mass. Hospital for Dipsomaniacs	793 52		
Mass School for the Feeble-minded	2,672 34		
Mass. General Hospital	18 00		
Mass. State Sanatorium	121 12		
Memorial Hospital	37 14		
Mrs. Mary E. Moore's	5 50		
Thos F. Smith's	168 99		
Mrs. Geo. E. Sweet's	169 46		
		7,914 10	
Board and care of insane at :—			
Danvers Insane Hospital	$1,451 37		
Medfield Insane Asylum	6,828 15		
Northampton Insane Hospital	169 46		
Taunton Insane Hospital	303 18		
Westboro Insane Hospital	2,966 64		
Worcester Insane Asylum	3,166 71		
Worcester Insane Hospital	10,500 94		
By Commonwealth of Massachusetts at State Hospital	1,081 78		
		26,468 23	
Burials :—			
City of Boston	$6 15		
H. D. Litchfield	169 10		
		175 25	
Burial fees, Cemetery Department		152 00	
Carpentry, W. H. Norris		6 44	
Carriage hire, M. J. Fairbanks		8 00	
Amounts carried forward		$38,181 67	$38,000 00

Public Charity and Correction — Continued.

OVERSEERS OF THE POOR DEPARTMENT, OUTSIDE AID. GENERAL EXPENSES — Continued.

Amounts brought forward		$38,181 67	$38,000 00
For car tickets :—			
Boston Elevated Railway Co.	$350 00		
Boston & Maine R. R.	51 75		
		401 75	
Cash expended for sundries :—			
S. F. Norris		7 24	
Directories :—			
W. A. Greenough & Co.	$10 50		
Sampson, Murdock & Co.	6 00		
		16 50	
Disinfectants :—			
Puritan Germicide Co.	$13 50		
West Disinfecting Co.	7 65		
		21 15	
Electrical work, F. Bryant & Co.		2 90	
Engrossing resolutions :—			
Patrick Crowley		10 00	
Ice, Fresh Pond Ice Co.		6 85	
Lighting :—			
Cambridge Electric Light Co.	$17 83		
Cambridge Gas Light Co.	10 50		
		28 33	
Massachusetts Year Book :—			
F. S. Blanchard & Co.		3 00	
Medicines, drugs, etc. :—			
Frank N. Abare	$18 76		
Jas A. Bird	14 86		
Earl Gray Coombs	11 52		
A. Cunningham	31 69		
J. H. Fitzgerald	5 66		
W. H. Frazier	6 33		
E. C. Gove	13 75		
Wm. B. Hunt & Co.	13 76		
E. H. La Pierre	112 57		
Nelson's Pharmacy	4 65		
E. H. Patten	26 91		
Reeves Bros.	6 70		
J. A. Tupper	6 05		
Sundry persons	7 75		
		280 96	
Medical and surgical apparatus and instruments :—			
J. Frank Gear	$1 50		
Peak Manufacturing Co.	9 00		
W. H. Phelps & Co.	10 00		
		20 50	
Nurse, Emma Crilly		2 00	
Amounts carried forward		$38,982 85	$38,000 00

Public Charity and Correction — Continued.

OVERSEERS OF THE POOR DEPARTMENT, OUTSIDE AID. GENERAL EXPENSES — Continued.

Amounts brought forward		$38,982 85	$38,000 00
For paper sacks, etc.: —			
Wm. H. Claflin & Co.		12 15	
Postage, Jos. Britton		29 50	
Professional services: —			
Wm. G. Brousseau, M. D.	$2 00		
L. L. Bryant, M. D.	2 00		
David C. Dow, M. D.	5 00		
Jno. E. Dwyer, M. D.	12 00		
J. P. Nelligan, M. D.	50 00		
		71 00	
Services as attendants: —			
John T. Cook	$12 00		
Mrs. Frances Crosby	2 00		
Warren H. Dow	14 00		
John McCauley	2 00		
Geo. W. Sherman	10 00		
Mrs. Ellen S. Stewart	14 00		
Dennis J. Sullivan	6 00		
		60 00	
Shingles, John S. Clary Lumber Co.		5 25	
Spectacles, F. O. Emery		2 50	
Stamps and repairs: —			
Allen Bros.	$1 25		
A. E. Chadbourne & Co.	6 20		
		7 45	
Stationery, printing and typewriter supplies: —			
Boston Bank Note Co.	$5 00		
Carter, Rice & Co.	8 10		
City Messenger Department	8 00		
Cotton & Gould	47 08		
J. A. Cummings Printing Co.	59 12		
J. Frank Facey	5 50		
The Fred Macey Co	25 40		
Sundry persons	5 18		
		163 38	
Stretcher repairs, Chas. Waugh & Co.		5 00	
Subsistence supplies: —			
Bower & Bartlett	$44 00		
Boyd, Dalton & Co.	120 44		
R. S. Edwards & Co.	141 47		
Gillmore & Co.	34 00		
J. A. Holmes & Co.	7 00		
McPherson Bros.	13 33		
Oriental Tea Co	50 10		
J. H. Pierce & Co.	28 38		
Sands, Taylor & Wood	34 50		
Amounts carried forward	$473 22	$39,339 08	$38,000 00

Public Charity and Correction — Continued.

OVERSEERS OF THE POOR DEPARTMENT, OUTSIDE AID. GENERAL EXPENSES — Concluded.

Amounts brought forward . .	$473 22	$39,339 08	$38,000 00
For Howard W. Spurr Coffee Co. .	5 50		
John P. Squire & Co. . . .	14 50		
Sundry persons	7 50		
		500 72	
Subscription, Pocket Manual Co. .		2 00	
Sundries		8 73	
Telephone service		118 39	
Total			39,968 92
Excess of Expenditures over Appropriation . .			$1,968 92
Transfer from Contingent Fund to this Department .			1,968 92

SALARY OF CITY PHYSICIAN. (3.5)

Appropriation	$1,500 00

EXPENDED.

For salaries of City Physicians:—		
Lewis L. Bryant, M. D. . . .	$673 39	
Wm. G. Brousseau, M. D. . .	826 61	
Total		1,500 00

3.9. MISCELLANEOUS.

STATE AID. (3.9)

Appropriation	$25,000 00

Department Receipts. Carried to General Treasury.

From the Commonwealth of Massachusetts in reimbursement, in part, of the amount the City has advanced, in conformity to the laws of the State, to volunteers and their families, or other dependents of volunteers of the army and navy:—		
For military aid	$591 00	
State aid	13,122 00	
Burials of soldiers and sailors .	840 00	
From sundry persons:—		
Aid and board	307 00	
Money uncalled for on pay rolls .	349 00	
	$15,209 00	
Amount carried forward . . .		$25,000 00

Public Charity and Correction — Concluded.

MISCELLANEOUS, STATE AID — Continued.

Amount brought forward . .			$25,000 00
	EXPENDED.		
For salaries of clerks :—			
Eben W. Pike	$402 80		
Chas. L. Russell	231 17		
		633 97	
Military aid	$672 00		
State aid	13,287 50		
Soldiers and sailors' aid . . .	7,689 00		
		21,648 50	
Aid :—			
City of Boston	$42 00		
City of Fall River	18 70		
City of Marlborough . . .	3 00		
Commonwealth of Massachusetts .	17 14		
Town of Phillipston . . .	12 00		
Town of Whitman	30 00		
		122 84	
Ambulance service, Chas. W. Dailey		11 00	
Board and care :—			
Commonwealth of Massachusetts .	$6 86		
Danvers Insane Hospital . .	41 79		
Holy Ghost Hospital . . .	107 42		
Fannie Klucken	64 00		
Medfield Insane Asylum . .	292 00		
Overseers of the Poor . . .	276 52		
Ellen Ralph	248 00		
Westboro Insane Hospital . .	87 75		
Worcester Insane Asylum . .	162 37		
Worcester Insane Hospital . .	338 92		
		1,625 63	
Burials :—			
W. Banks	$35 00		
D. F. Corcoran	35 00		
W. A. Flaherty & Son . . .	35 00		
Joseph J. Kelley & Son . . .	70 00		
H. D. Litchfield	105 00		
Judson Litchfield	105 00		
C. H. Lockhart	140 00		
John S. McGowan	35 00		
James F. Mullen	70 00		
Shea Bros.	70 00		
J. W. Sprague	35 00		
		735 00	
Car tickets : —			
Boston Elevated Railway Co .		10 00	
Directory, W. A. Greenough & Co. .		3 50	
Fuel : —			
Bay State Fuel Co.	$13 05		
Clark Bros.	29 05		
Amounts carried forward . . .	$42 10	$24,790 44	$25,000 00

Public Charity and Correction — Concluded.

MISCELLANEOUS, STATE AID — Concluded.

Amounts brought forward .	$42 10	$24,790 44	$25,000 00
For Coleman Bros	2 95		
Overseers of the Poor . . .	38 57		
Geo. Richardson	5 25		
		88 87	
Printing, stationery, etc. : —			
City Messenger Department . .	$9 42		
J. A. Cummings Printing Co. .	2 25		
J. Frank Facey	24 00		
The Powell Press	37 50		
		73 17	
Professional services : —			
Wm. G. Brousseau, M. D. . .		15 00	
Sundries		3 81	
Supplies. Yerxa & Yerxa . . .		16 01	
Typewriting, E. W. Pike . . .		6 00	
Total			24,993 30
Surplus of Appropriation			$6 70
Transfer from this Department to Contingent Fund			6 70

4. PUBLIC WAYS AND WASTES.

4.1 ADMINISTRATION.

ENGINEERING DEPARTMENT. (4.1)

SALARIES AND CLERICAL ASSISTANCE.

Appropriation		$9,200 00
EXPENDED.		
For salaries of Engineers :—		
L. M. Hastings	$1,350 80	
Jas. W. Pierce	1,649 20	
	$3,000 00	
Assistants	5,764 66	
Clerk, Mary E. Rowen	390 00	
Total		$9,154 66
Surplus of Appropriation		$45 34
Transfer from this Department to Contingent Fund		45 34

GENERAL EXPENSES.

Appropriation			$700 00
EXPENDED.			
For atlas, G. W. Bromley & Co.		$30 00	
Books, John Wiley & Sons		5 09	
Boots, Robert Josselyn		7 00	
Camera and photographic goods :—			
Joseph L Gomes	$50 75		
J. L. Moseley	4 75		
Whitney & Son	11 90		
Sundry persons	4 84		
		72 24	
Car tickets :—			
Boston Elevated Railway Co.		140 00	
Cotton. D. W. Hyde & Co.		8 48	
Expressage, sundry persons		3 35	
Hardware, tools and repairs, and supplies :—			
E. T. Bynner	$15 15		
H. J. Shaw	2 00		
F. A. White	12 25		
		29 40	
Line plates :—			
Forbes Lithograph Mfg. Co.		12 00	
Amounts carried forward		$307 56	$700 00

Public Ways and Wastes — Continued.

ADMINISTRATION, GENERAL EXPENSES — Concluded.

Amounts brought forward . .		$307 56	$700 00
For plan case, W. H. Dogherty . .		80 00	
Record sheets for rain gauge :—			
S. P. Ferguson		5 50	
Stakes, John Quin & Son . . .		3 25	
Stamps, Pneumatic Hand Stamp Co.		9 59	
Stationery, printing, and drawing materials :—			
City Messenger Department . .	$39 34		
Cotton & Gould	8 95		
J. A. Cummings Printing Co .	14 98		
J. Frank Facey	10 25		
S. P. Ferguson	3 00		
Frost & Adams Co. . . .	70 91		
J. K. Rhodes	3 25		
Geo. W. Smith	3 00		
E. G. Soltmann	13 88		
Spalding Print Paper Co. . .	17 50		
Sundry persons	3 40		
		188 46	
Subscriptions : —			
Engineering News Publishing Co	$5 75		
Engineering Record . . .	5 00		
Municipal Engineering Co. . .	2 00		
		12 75	
Sundries		6 72	
Telephone service		75 92	
Total			689 75
Surplus of Appropriation . . .			$10 25
Transfer from this Department to Contingent Fund			10 25

STREET DEPARTMENT — MAINTENANCE.

SALARY OF SUPERINTENDENT AND CLERICAL ASSISTANCE. (4.1)

Appropriation			$4,000 00
EXPENDED.			
For salaries of Superintendents : —			
Chas. A. Brown	$236 56		
John T. Shea	1,763 44		
		$2,000 00	
Clerks : —			
Geo. M. Clukas	$168 00		
Henry P. Fielding	986 30		
Maud E. Foster	521 50		
Frances R. Leonard . . .	20 90		
Amounts carried forward . . .	$1,696 70	$2,000 00	$4,000 00

Public Ways and Wastes — Continued.

ADMINISTRATION, SALARY OF SUPERINTENDENT AND CLERICAL ASSISTANCE — Concluded.

Amounts brought forward . .	$1,696 70	$2,000 00	$4,000 00
For Rose E. Manning	332 25		
Georgia W. Sanborn . . .	71 05		
		2,100 00	
Total			4,100 00
Excess of Expenditures over Appropriation			$100 00
Transfer from Street Department Watering to this Department			100 00

4.2 OPENING, GRADING AND WIDENING STREETS.

LAND DAMAGES. (4.2)

Appropriation			$35,000 00
EXPENDED.			
For appraisal, Arthur M. Stewart .		$25 00	
Examination of titles :—			
Wm. V. Thompson . . .		101 00	
Clark Street :—			
Abatements of betterments assessments :—			
Heirs of Jane S. Hall . .	$339 85		
Heirs of Oliver Hall . . .	130 50		
Land and damages :—			
Sarah M. Brooks . . .	300 00		
Heirs of Samuel P. Teele . .	105 00		
		875 35	
Commercial Avenue :—			
Land and damage :—			
Geo. O. Proctor	$3,057 30		
Making appraisal on buildings of Wellington Coal Co. :—			
E. W. Boynton	50 00		
Retainer, Watson G. Cutter . .	50 00		
Services as expert :—			
Frederick H. Viaux . . .	100 00		
		3,257 30	
Dudley Street :—			
Annie Bours	$50 00		
Thos. F. Cahir	150 00		
Mary Cowan	50 00		
Amounts carried forward . . .	$250 00	$4,258 65	$35,000 00

Public Ways and Wastes — Continued.

OPENING, GRADING AND WIDENING STREETS LAND DAMAGES — Concluded.

Amounts brought forward . .	$250 00	$4,258 65	$35,000 00
For David W. Davis . . .	25 00		
Mary E. McKeever	100 00		
Thos. O'Callaghan	25 00		
		400 00	
Prison Point Street:—			
Land and damages:—			
Benj. C. Clark, Trustee . .	$5,000 00		
Caroline A. Smith . . .	5,000 00		
Carrie W. Smith, Trustee . .	5,000 00		
		15,000 00	
Warland Street: —			
Land and damages: —			
Susan A. Hovey	$4,400 00		
Theodore H. Raymond . .	3,065 00		
Emma F. Stafford . . .	1,770 00		
		9,235 00	
Wright Street: —			
Edward J. Comerford . . .	$262 90		
Michael W. Loughran . . .	180 00		
John H. McDonald . . .	265 00		
Arria E. Revinius	180 00		
Calvin H. Topliff	180 00		
		1,067 90	
Total			29,961 55
Surplus of Appropriation relinquished to General Treasury			$5,038 45

CONSTRUCTION, CLIFTON STREET. (4.2)

Appropriation			$700 00
EXPENDED.			
For labor as per pay-rolls . . .		$820 41	
Fuel, Metropolitan Coal Co. . .		5 00	
Grain, W. H. Enos & Co. . . .		20 00	
Gravel, freight and loading: —			
Boston & Maine R. R. . . .	$30 00		
Edward Reidy	110 00		
		140 00	
Hardware, Durnin, McLaughlin & Co.		6 25	
Lumber, John S. Clary Lumber Co. .		5 00	
Oil, Standard Oil Co. . . .		6 60	
Straw, J. Cushing & Co. . . .		10 00	
Amounts carried forward . . .		$1,013 26	$700 00

Public Ways and Wastes — Continued.

OPENING, GRADING AND WIDENING STREETS, CONSTRUCTION, CLIFTON STREET — Concluded.

Amounts brought forward . .	$1,013 26	$700 00
For stone: —		
Massachusetts Broken Stone Co. .	152 56	
Teaming	125 63	
Total		1,291 45
Excess of Expenditures over Appropriation . .		$591 45
Transfer to this Department from Street Department Construction, Commercial Avenue . . .		616 09
Balance relinquished to General Treasury . . .		$24 64

CONSTRUCTION, COMMERCIAL AVENUE. (4.2)

Appropriation		$1,000 00
EXPENDED.		
For labor as per pay-roll . . .	$219 25	
Filling, James P. McSorley . .	156 75	
Lumber, John S. Clary Lumber Co. .	7 91	
Total		383 91
Surplus of Appropriation		$616 09
Transfer from this Department to Street Department Construction, Clifton Street		616 09

CONSTRUCTION, WARLAND STREET. (4.2)

Appropriation		$1,800 00
EXPENDED.		
For labor as per pay-rolls . . .	$846 02	
Edgestone, Austin Ford & Son .	226 05	
Fuel, Metropolitan Coal Co. . .	12 47	
Grain, J. Cushing & Co. . . .	90 90	
Gravel, freight and loading: —		
Boston & Maine R. R. . . .	35 50	
Gutter stone, S. & R. J. Lombard .	138 63	
Hardware, tools, etc.: —		
Durnin, McLaughlin & Co. . .	5 00	
Harness and repairs, M Cavanagh .	8 00	
Hay, J Cushing & Co. . . .	63 40	
Horseshoeing, John F. Gurry & Sons	14 25	
Lumber, John S. Clary Lumber Co. .	5 58	
Amounts carried forward . . .	$1,445 80	$1,800 00

Public Ways and Wastes — Continued

OPENING, GRADING AND WIDENING STREETS, CONSTRUCTION, WARLAND STREET — Concluded.

Amounts brought forward . .		$1,445 80	$1,800 00
For oil, Standard Oil Co. . . .		4 55	
Straw, J. Cushing & Co. . . .		10 00	
Stone: —			
Massachusetts Broken Stone Co. .	$97 87		
Waltham Trap Rock Co. . .	29 52		
		127 39	
Supplies, A. Cunningham . . .		3 00	
Teaming		6 25	
Total			1,596 99
Balance relinquished to General Treasury . . .			$203 01

BOARD OF SURVEY. (4.2)

Appropriation		$100 00
EXPENDED.		
For salary of clerk, John McDuffie .	$75 00	
Carriage hire	6 00	
Dinners, M. R. Jones . . .	8 00	
Printing: —		
J. A. Cummings Printing Co. .	7 50	
Total		96 50
Surplus of Appropriation		$3 50
Transfer to Contingent Fund		3 50

4.3. STREET PAVING.

STREET DEPARTMENT.

REBUILDING CAMBRIDGE STREET. (4.3)

Appropriation		$5,000 00
EXPENDED.		
For labor as per pay-rolls . . .	$1,117 99	
Fuel, Metropolitan Coal Co . .	12 47	
Grain, J. Cushing & Co. . . .	92 70	
Granite paving, blocks and freight: —		
Austin Ford & Son	2,412 00	
Gravel, freight and loading: —		
Boston & Maine R. R. . . .	27 65	
Amounts carried forward . . .	$3,662 81	$5,000 00

Public Ways and Wastes — Continued.

STREET PAVING, REBUILDING CAMBRIDGE STREET — Concluded.

Amounts brought forward . .	$3,662 81	$5,000 00
For hardware, tools, etc.: —		
Durnin, McLaughlin & Co. . .	5 00	
Harness and repairs, M. Cavanagh .	10 00	
Hay, J. Cushing & Co. . . .	100 00	
Lumber, John S. Clary Lumber Co. .	5 00	
Oil, Standard Oil Co.	3 90	
Supplies, A. Cunningham . . .	3 85	
Teaming	70 63	
Total		3,867 19
Balance relinquished to General Treasury . . .		$1,132 81

REBUILDING RIVER STREET. (4.3)

Appropriation	$10,000 00
Revenue appropriated	450 11
	$10,450 11

DEPARTMENT RECEIPTS. CARRIED TO CREDIT OF THE DEPARTMENT.

For fuel	$450 11

EXPENDED.

For laborers, as per pay-rolls . .		$5,003 45	
Cement, D W. Lewis . . .		414 40	
Concrete stone, Wm. B. Mullen .		448 29	
Gravel, freight and loading: —			
Andrew Condon		398 30	
Hardware, tools and repairs, and supplies: —			
Boston Engineers' Supply Co. .	$16 00		
Brock Bros.	51 00		
P. J. Carmichael	2 50		
Durnin, McLaughlin & Co. . .	72 72		
Union Glass Co.	7 75		
		149 97	
Lumber, John S. Clary Lumber Co. .		21 51	
Oil, Standard Oil Co. . . .		19 25	
Road pitch: —			
New England Felt Roofing Works		55 50	
Straw, J. Cushing & Co. . . .		23 00	
Teaming, sundry persons . . .		620 64	
Use of steam roller, Warren Bros. Co.		115 00	
Vitrified paving blocks: —			
Metropolitan Paving Brick Co. .		3,180 80	
Total			10,450 11

Public Ways and Wastes — Continued.

STREET DEPARTMENT — MAINTENANCE.

MACADAMIZING, RESURFACING AND REPAIRING STREETS, AND GENERAL EXPENSES. (4.3)

Appropriation	$64,000 00

DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.

For apples	$10 00
Barrels	1 50
Bricks	2 46
Horses	495 00
Horse board	256 00
Horseshoeing	162 60
Junk	58 35
Labor	50 38
Manure	160 00
Old materials	50
Paint	6 00
Permit fees	17 50
Sand	6 15
Scrap iron	52 54
Scrapings	177 90
Steam roller	42 50
Stone	189 10
Stone dust	42 82
Teaming	6 50
Use of horse	2 38
Wagon	25 00
	$1,765 18

EXPENDED.

For laborers, as per pay rolls			$39,492 40
Cement, D. W. Lewis			493 50
Electric lighting: —			
Cambridge Electric Light Co.			345 96
Fuel: —			
Bay State Fuel Co	$57 22		
Metropolitan Coal Co.	1,543 32		
		1,600 54	
Gravel, freight and loading: —			
Boston & Maine R. R.	$429 53		
Henry B. Brown	144 40		
Andrew Condon	8 80		
Antoni Leonard	3 00		
Edw. J Reidy	115 60		
John M. Riley	18 75		
Jeremiah Sullivan	717 95		
		1,438 03	
Amounts carried forward		$43,370 43	$64,000 00

Public Ways and Wastes — Continued.

MACADAMIZING, RESURFACING AND REPAIRING STREETS, AND GENERAL EXPENSES — Continued.

Amounts brought forward		$43,370 43	$64,000 00
For hardware, tools, etc.: —			
Brock Bros.	$122 68		
E. T. Bynner	9 50		
P. J. Carmichael	17 36		
Durnin, McLaughlin & Co.	838 14		
The Fairbanks Co.	9 50		
E. H. McDuffee	40 00		
C. W. H. Moulton & Co.	11 55		
Moynahan & Co.	58 65		
Pill Bros.	5 75		
A. F. Scott	12 00		
Daniel J. Sullivan	25 30		
Union Glass Co.	6 00		
Sundry persons	5 85		
		1,162 28	
Harness, repairs, etc.: —			
M. Cavanagh	$137 21		
Joseph Cogan	82 74		
James Curry	95 10		
Jas. Forgie's Sons	36 40		
John H. Fuller	169 20		
John J. Hawkes	17 50		
F. Ivers & Son	52 60		
G. C. Kinsley	2 70		
F. X. Massé	2 10		
Hugh McCaffrey	76 15		
Geo. A. Noyes & Co.	20 00		
Jos. A. Ryan	79 20		
Sartwell, Heinold & Humphrey	38 26		
		809 16	
Hay, grain and straw: —			
Cambridge Grain Co.	$35 89		
R. Costello	781 52		
J. Cushing & Co.	3,072 54		
		3,889 95	
Renewals and repairs: —			
Carriage repairs, Stephen J. Moran	$64 00		
Electrical work: —			
F. Bryant & Co.	1 65		
Electrical Dept., Wires	1 40		
Hardware and supplies: —			
P. J. Carmichael	14 46		
Durnin, McLaughlin & Co.	2 42		
F. P. Merrill Co.	50		
Lumber: —			
John S. Clary Lumber Co.	189 03		
Geo. W. Gale Lumber Co.	62 00		
E. B. James Lumber Co.	39 32		
E. D. Sawyer Lumber Co	15 38		
Wm H. Wood & Co.	41 22		
Amounts carried forward	$431 38	$49,231 82	$64,000 00

Public Ways and Wastes — Continued.

MACADAMIZING, RESURFACING AND REPAIRING STREETS, AND GENERAL EXPENSES — Continued.

Amounts brought forward . .	$431 38	$49,231 82	$64,000 00
For paints, oils, etc. : —			
Murphy Varnish Co . . .	16 00		
Wadsworth, Howland & Co. .	90 81		
John L. Whiting & Son Co. .	6 46		
Plumbing and heating apparatus : —			
Brock Bros.	24 68		
Moynahan & Co.	24 46		
Repairs, A. H. Hewes & Co. . .	1 15		
Repairing clock, J. P. Shurtleff .	1 00		
Repairing asphalt pavement on Massachusetts ave : —			
Warren Bros. & Co . . .	298 08		
Repairing piping : —			
Edw. Kendall & Sons . . .	8 24		
Rubber tires : —			
Cambridge Rubber Tire Equipment Co.	25 00		
		927 26	
Steam rollers, repairs and supplies :—			
Barbour-Stockwell Co. . . .	$23 30		
Boston Engineers' Supply Co. .	70 88		
Chas. A. Claflin & Co. . . .	51 86		
A. H. Hews & Co.	121 20		
Edw. Kendall & Sons . . .	103 83		
F. X. Massé	90		
H. J. Shaw	14 60		
		386 57	
Stone :—			
Concrete stone, Wm. B. Mullen .	$12 42		
Crushed stone :—			
Massachusetts Broken Stone Co.	1,787 37		
Waltham Trap Rock Co. . .	359 41		
Field stone, sundry persons . .	6,304 85		
		8,464 05	
Stone dust, Waltham Trap Rock Co.		344 61	
Stone crushers, repairs and supplies :—			
E. B. Badger & Sons Co. . .	$100 80		
Barbour-Stockwell Co. . . .	47 70		
Boston Engineers' Supply Co .	209 49		
Boston & Maine R. R. . . .	2 50		
Chas. A Claflin & Co. . . .	28 88		
Farrell Foundry & Machine Co. .	50 00		
Fay Bros.	6 00		
A H. Hews & Co.	10 67		
Amounts carried forward . . .	$456 04	$59,354 31	$64,000 00

Public Ways and Wastes — Continued.

MACADAMIZING, RESURFACING AND REPAIRING STREETS, AND GENERAL EXPENSES — Continued.

Amounts brought forward . .	$456 04	$59,354 31	$64,000 00
For Holder & Herrick	10 23		
J. H. Houghton	166 60		
Edw. Kendall & Sons . . .	18 07		
Morss & Whyte	20 00		
E. D. Sawyer Lumber Co. . .	11 55		
H. J Shaw	8 73		
Taylor Iron & Steel Co. . . .	155 30		
		846 52	
Street signs :—			
Gold leaf, etc., P. J. Carmichael .	$27 20		
Lumber, John S. Clary Lumber Co.	12 00		
		39 20	
Sundries :—			
Asphaltum, E. T. Bynner . .	$15 00		
Broom stock, A. M. Loker . .	50 15		
Camphor, A. Cunningham . .	3 65		
Carriage hire, Whiting & Prescott	6 00		
Carriage repairs, F. Ivers & Son .	16 35		
Chamois skin	3 00		
Cureido, C. H. Hadley & Co. . .	4 00		
Electrical work, Elec. Dept., Wires	20 63		
Expressage	1 90		
Fire alarm box, W E. Decrow .	75 00		
Freight, Metropolitan Steamship Co.	2 76		
Horse, Martin J. Murphy . .	150 00		
Horse clipping, Ferris & Co. . .	6 00		
Horse hire, G. W. Worcester .	13 50		
Hose, Boston Woven Hose Co. .	3 50		
Lowering topmast, M. J. Connelly	5 15		
Lumber :—			
John S. Clary Lumber Co. . .	7 02		
Geo. W. Gale Lumber Co. . .	46 86		
Wm. H. Wood & Co. . . .	21 11		
Lunches, Riverbank Court . .	12 50		
Mill work, Ira G. Hersey . .	6 03		
New buggies (two) :—			
Bunker Hill Carriage Co. . .	300 00		
Oatmeal, G. P. O'Brien . . .	7 60		
Oil, etc. :—			
Boston Engineers' Supply Co. .	12 72		
Butchers' Slaughtering and Melting Association . . .	20 00		
Murphy Varnish Co. . .	7 50		
Standard Oil Co	74 28		
The Alden Speare's Sons Co. .	62 50		
Rope, New England Cordage Co. .	30 75		
Amounts carried forward . . .	$985 46	$60,240 03	$64,000 00

Public Ways and Wastes — Continued.

MACADAMIZING, RESURFACING AND REPAIRING STREETS, AND GENERAL EXPENSES — Continued.

Amounts brought forward . .	$985 46	$60,240 03	$64,000 00
For salt:—			
Eastern Salt Co.	3 40		
G. P. O'Brien	2 20		
Salt brick, Useful Novelty Co. .	10 50		
Sealing fees:—			
Sealer of Weights and Measures	3 73		
Seed meal, L. G. Stone . . .	15 00		
Sharpening lawn mover and clipper:—			
A. H. Hewes & Co. . . .	2 21		
Soap:—			
Wm. B. Hunt & Co. . . .	5 25		
C G. Kinsley	2 70		
Supplies:—			
R. Blum	61 11		
P. J. Carmichael	13 92		
A. C. Curtis	5 21		
F. X. Massé	10 57		
McCloskey & Harty . . .	3 42		
F. P. Merrill Co.	39 29		
Sundry persons	3 31		
Test of road material. Lionel S. Marks	5 00		
Use of surrey:—			
Geo. E. Francis . . .	1 50		
F. P. Merrill	1 50		
	———	1,175 28	
Teaming, sundry persons . . .		1,728 13	
Telephones, stationery and miscellaneous office supplies:—			
Advertising, Press Newspaper Co. .	7 50		
Cabinet and card index:—			
Globe-Wernicke Co. . . .	18 67		
Car tickets:—			
Boston Elevated Railway Co. .	20 00		
Cotton, J. H. Corcoran & Co. .	30		
Directory, W. A. Greenough & Co.	3 50		
Electrical supplies:—			
Electric Gas Lighting Co. . .	1 47		
Expressage	1 35		
Installing buzzer, Elec. Dept. Wires	1 30		
Amounts carried forward . . .	$54 09	$63,143 44	$64,000 00

Public Ways and Wastes — Continued.

MACADAMIZING, RESURFACING AND REPAIRING STREETS, AND GENERAL EXPENSES — Concluded.

Amounts brought forward . .	$54 09	$63,143 44	$64,000 00
For printing :—			
J. A. Cummings Printing Co. .	16 06		
J. Frank Facey	311 25		
Press Newspaper Co. . . .	50		
Railroad ticket, Chas. A. Brown .	4 30		
Stamps and pads :—			
Benj. F. Allen	44		
H. C. Dimond & Co. Estate .	3 25		
Stationery, etc. :—			
F. W. Barry, Beale & Co. . .	75		
City Messenger Department .	65 11		
Cotton & Gould	29 72		
Hobbs & Warren Co. . . .	10 30		
Remington Typewriter Co. .	12 25		
Thorp & Martin Co. . . .	13 75		
Subscriptions :—			
Municipal Engineering Magazine	2 00		
Municipal Journal Publishing Co.	3 00		
Telegrams	81		
Telephone service	305 36		
Typewriter repairs and supplies :—			
Smith Premier Typewriter Co. .	11 50		
		844 44	
Vitrified bricks :—			
Metropolitan Paving Brick Co. .		989 94	
Total			64,977 82
Excess of Expenditures over Appropriation . .			$977 82
Transfer from Contingent Fund to this Department .			977 82

4.4. SIDEWALKS.

STREET DEPARTMENT—PAVING, EDGESTONES AND SIDEWALKS. (4.4)

Appropriation		$30,000 00
DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.		
For edgestones and sidewalk assessments	$9,426 54	
Labor and materials	247 07	
	$9,673 61	
Amount carried forward . . .		$30,000 00

Public Ways and Wastes — Continued.

SIDEWALKS, STREET DEPARTMENT, PAVING, EDGESTONES AND SIDEWALKS — Continued.

Amount brought forward			$30,000 00
EXPENDED.			
For laborers as per pay-rolls		$14,312 95	
Artificial stone sidewalks :—			
Thos. J. Hind	$38 17		
Geo. H. Lowe	138 90		
W. A. Murtfeldt Co.	86 04		
Simpson Bros. Corporation	319 35		
Warren Bros. Co.	255 32		
		837 78	
Gravel, freight and loading : —			
Boston & Maine R. R.	$549 91		
Jas. Gray	99 65		
		649 56	
Hardware, tools and supplies : —			
Boston Engineers' Supply Co.	$16 00		
Jos. Breck & Sons	14 00		
Brock Bros.	22 50		
Durnin, McLaughlin & Co.	95 70		
F. X. Massé	2 90		
A. F. Scott	6 00		
Union Glass Co.	16 00		
A. J. Wilkinson & Co.	11 70		
Sundry persons	3 14		
		187 94	
Hay, grain and straw : —			
R. Costello	$75 70		
J. Cushing & Co.	817 67		
W. H. Enos & Co.	29 55		
Proctor Bros.	32 16		
		955 08	
Lumber, John S. Clary Lumber Co.		78 31	
Paving bricks :—			
Curtis & Pope Lumber Co.		5,164 26	
Renewals and repairs :—			
Bicycle repairs, E. H. McDuffee	$ 25		
Spokes, Holt Bros. Mfg. Co.	6 40		
		6 65	
Stone :—			
Cutting blocks, Jeremiah Hagerty	$169 44		
Edgestone :—			
Austin Ford & Son	5,194 66		
S. & R. J. Lombard	699 11		
Chas. McMahon	13 40		
Giles Taintor	27 90		
Gutter stone, S. & R. J. Lombard	1,409 90		
		7,514 41	
Sundries :—			
Car fares, Henry B. Brown	$6 25		
Amounts carried forward	$6 25	$29,706 94	$30,000 00

Public Ways and Wastes — Continued.

SIDEWALKS, STREET DEPARTMENT, PAVING, EDGESTONES AND SIDEWALKS — Concluded.

Amounts brought forward . .	$6 25	$29,706 94	$30,000 00
For meal, etc. :—			
G. P. O'Brien	7 00		
J. F. Sharkey	2 18		
Oil, Standard Oil Co. . . .	118 95		
		134 38	
Teaming, sundry persons . . .		157 50	
Total			29,998 82
Surplus of Appropriation			$1 18
Transfer to Contingent Fund from this Department .			1 18

STREET DEPARTMENT, PAVING, CROSSINGS AND REPAIRS. (4.4)

Appropriation			$10,000 00
EXPENDED.			
For laborers, as per pay rolls . .		$9,142 22	
Cement, D. W. Lewis . . .		55 30	
Concrete stone, Wm. B. Mullen .		18 17	
Granite flagging :—			
Austin Ford & Son		419 08	
Hardware, tools, etc. :—			
Dodge, Haley & Co. . . .		8 10	
Hay :—			
R. Costello	$39 90		
J. Cushing & Co.	96 60		
		136 50	
Teaming, sundry persons . . .		220 63	
Total			$10,000 00

4.5. STREET LIGHTING.

ELECTRICAL DEPARTMENT — STREET LIGHTING. (4 5)

SALARIES.

Appropriation			$1,000 00
EXPENDED.			
For salaries of Superintendents :—			
Chas. F. Hopewell		$341 65	
Timothy C. O'Hearn . . .		658 35	
Total			1,000 00

Public Ways and Wastes — Continued.

STREET LIGHTING — Continued.

ELECTRICAL DEPARTMENT, STREET LIGHTING.

GENERAL EXPENSES.

Appropriation		$75,500 00

DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.

For lamp post	$5 00	

EXPENDED.

For car tickets: —			
Boston Elevated Railway Co.		$45 00	
Care of lamp, Madison Crutchfield		3 55	
Cash expended for traveling expenses: —			
T. C. O'Hearn		35 00	
Goddard buggy, Mrs. M. E. Reis		60 00	
Harness and repairs, etc: —			
Ordway, Loring & Ricker	$34 75		
Joseph A. Ryan	6 00		
Sundry persons	3 50		
		44 25	
Horse, F. J. Smith		250 00	
Horse board: —			
John J. Corkery	$95 65		
Prospect Stables	106 64		
Street Department	18 67		
Whiting & Prescott	75 00		
		295 96	
Horseshoeing: —			
Wm. Balmer	$18 75		
John Ryan	15 00		
Sundry persons	3 55		
		37 30	
Lighting streets: —			
Cambridge Electric Light Co.: —			
Arc	$52,690 82		
Incandescent	11,994 17		
Welsbach Street Lighting Co.	8,440 44		
		73,125 43	
Printing: —			
J. A. Cummings Printing Co.	$45 53		
J. Frank Facey	11 90		
		57 43	
Resetting post: —			
Cambridge Gas Light Co		5 00	
Stationery: —			
City Messenger Department		35 42	
Sundries		6 89	
Telephone service		37 93	
Amounts carried forward		$74,039 16	$75,500 00

Public Ways and Wastes — Concluded.

STREET LIGHTING, GENERAL EXPENSES — Concluded.

Amounts brought forward . .		$74,039 16	$75,500 00
For tires: —			
Camb. Rubber Tire Equipment Co.		25 00	
Typewriter: —			
Smith Premier Typewriter Co. .		79 50	
Typewriter repairs and supplies: —			
Oliver Typewriter Co. . . .		8 70	
Wagon and carriage repairs: —			
J. E. Fitzgerald	$19 50		
Chas. Waugh & Co. . . .	4 80		
		24 30	
Total			74,176 66
Surplus of Appropriation			$1,323 34
Transfer from this Department to Contingent Fund .			1,323 34

4.6 STREET CLEANING.

STREET DEPARTMENT, CLEANING STREETS. (4.6.)

Appropriation			$35,000 00
EXPENDED.			
For laborers, as per pay-rolls . .		$29,673 62	
Gravel, Joshua Stone . .		6 90	
Hardware, tools and supplies: —			
Harold L. Bond & Co. . . .	$15 42		
Boston Engineers' Supply Co. .	7 50		
Brock Bros	39 00		
Durnin, McLaughlin & Co. . .	176 51		
Pill Bros.	4 92		
		243 35	
Harness repairs, etc.: —			
Joseph Cogan	$15 22		
James Curry	16 15		
		31 37	
Hay, grain and straw: —			
R. Costello	$299 18		
J. Cushing & Co.	1,692 92		
W. H. Enos & Co.	40 00		
		2,032 10	
Machine sweeper repairs: —			
Barbour, Stockwell Co. .	$49 71		
Boston Belting Co. . . .	7 37		
Boston & Maine R. R. . . .	50		
G W. Brady	12 00		
Brock Bros.	4 41		
Amounts carried forward . . .	$73 99	$31,987 34	$35,000 00

Public Ways and Wastes — Continued.

STREET CLEANING, STREET DEPARTMENT, CLEANING STREETS — Concluded.

Amounts brought forward . .	$73 99	$31,987 34	$35,000 00
For Edson Mfg. Co.	23 34		
A. H. Hewes & Co.	19 01		
New England Broom Co. . .	195 00		
Wm. C. Oastler	24 70		
		336 04	
Pitch, Chapman & Soden . . .		5 00	
Renewals and repairs: —			
Hardware and supplies: —			
P. J. Carmichael	$5 73		
Mill work, Ira G. Hersey . .	75		
Repairing road machine: —			
Good Roads Machinery Co. .	17 00		
Steel, H. H. Harvey . . .	10 29		
		33 77	
Sundries: —			
Board, Joseph Breck & Sons .	$3 60		
Fuel, Metropolitan Coal Co. .	2 00		
Horseshoeing, Thos. Smith & Sons	2 00		
Mill work, Ira G. Hersey . .	1 50		
		9 10	
Teaming, sundry persons . .		2,624 38	
Total			34,995 63
Surplus of Appropriation			$4 37
Transfer to Contingent Fund from this Department			4 37

4.8 STREET SPRINKLING.

STREET DEPARTMENT, WATERING STREETS. (4.8)

Appropriation			$29,000 00
DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.			
For assessments	$16,359 96		
Collections	1,361 77		
	$17,721 73		
EXPENDED.			
For laborers, as per pay-rolls . .		$6,143 79	
Bicycle and repairs, E. H. McDuffee		56 45	
Clerical assistance in levying assessments		130 63	
Fuel, Metropolitan Coal Co. . .		27 50	
Amounts carried forward . . .		$6,358 37	$29,000 00

Public Ways and Wastes — Continued.

STREET SPRINKLING, STREET DEPARTMENT, WATERING STREETS — Continued.

Amounts brought forward . .		$6,358 37	$29,000 00
For hardware, tools and supplies: —			
Boston Engineers' Supply Co. .	$2 25		
Brock Bros.	30		
A. Cunningham	3 00		
Durnin, McLaughlin & Co. . .	214 70		
M. J. Sheehan	13 84		
D. J. Sullivan	2 40		
F. A. White	3 62		
		240 11	
Harness and repairs: —			
M. Cavanagh	$4 15		
James Curry	14 50		
John J. Hawkes	2 50		
Hugh McCaffrey	24 42		
		45 57	
Hay, grain and straw: —			
R. Costello	$19 12		
J. Cushing & Co.	1,028 13		
W. H. Enos & Co.	100 00		
		1,147 25	
Hose, tape, etc.: —			
Boston Woven Hose Co. . .		2 25	
Sprinkling streets by contracts .		19,011 38	
Stand-pipes and repairs: —			
Water Works Department . .		170 93	
Teaming, sundry persons . . .		37 50	
Watering cart repairs: —			
Abbot-Downing Co. . . .	$16 50		
American Stave & Cooperage Co. .	68 00		
Babcock Varnish Co. . . .	98 50		
Barbour-Stockwell Co. . . .	5 00		
Boston Woven Hose Co. . .	28 80		
E. T. Bynner	77 90		
P. J. Carmichael	17 07		
Dodge, Haley & Co. . . .	34 95		
Duff Spring Co.	146 93		
Durnin, McLaughlin & Co. . .	6 74		
Ira G. Hersey	11 78		
Hugh McCaffrey	60		
Metropolitan Coal Co. . . .	5 00		
Moynahan & Co.	3 00		
Murphy Varnish Co. . . .	120 70		
Pill Bros.	2 50		
J. L. & H. K. Potter . . .	36 00		
H. J. Shaw	3 45		
Wadsworth, Howland & Co. . .	71 90		
Amounts carried forward . . .	$755 32	$27,013 36	$29,000 00

Public Ways and Wastes — Continued.

STREET SPRINKLING, STREET DEPARTMENT, WATERING STREETS — Concluded.

Amounts brought forward . .	$755 32	$27,013 36	$29,000 00
For Waterproof Paint Co. . . .	30 00		
F. A. White	1 50		
Henry J. Winde	101 94		
		888 76	
Total			27,902 12
Surplus of Appropriation			$1,097 88
Transfer to Street Department, Maintenance, Salaries, from this Department			100 00
			$997 88
Transfer to Contingent Fund from this Department .			997 88

4.9 REFUSE COLLECTION AND DISPOSAL.

OVERSEERS OF THE POOR DEPARTMENT.

HOUSE OFFAL. LABOR. (4.9)

Appropriation			$22,500 00
EXPENDED.			
For laborers, as per pay rolls . .		$24,049 50	
Labor, Hugh Toomey . . .		120 00	
Total			24,169 50
Excess of Expenditures over Appropriation . .			$1,669 50
Transfer from Contingent Fund to this Department .			1,669 50

HOUSE OFFAL. GENERAL EXPENSES.

Appropriation			$4,500 00
DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.			
For sale of house offal	$10,359 99		
EXPENDED.			
For disinfectant, C. W. Lerned & Co. .		$23 77	
Hardware, tools and supplies:—			
Jos. Breck & Sons	$21 07		
Burditt & Williams Co. . . .	8 08		
E. T. Bynner	13 20		
Dodge, Haley & Co. . . .	15 11		
Amounts carried forward . .	$57 46	$23 77	$4,500 00

Public Ways and Wastes — Continued.

REFUSE COLLECTION AND DISPOSAL, HOUSE OFFAL, LABOR — Concluded.

Amounts brought forward . .	$57 46	$23 77	$4,500 00
For Dutton & McLean	40		
Austin A. O'Toole	2 50		
Daniel J. Sullivan	2 00		
		62 36	
Harness oil, L. G. Stone & Co. . .		5 00	
Harness and repairs, and horse clothing :—			
Geo. A. Noyes & Co. . . .	$10 00		
Jos. A. Ryan	154 70		
Sartwell, Heinold & Humphrey .	19 50		
		184 20	
Hay, grain and straw :—			
Clark Bros.	$1,098 27		
R. Costello	492 12		
J. Cushing & Co.	1,944 71		
L. G. Stone & Co.	22 50		
		3,557 60	
Horses :—			
John Connors	$200 00		
Wm Hopkins	365 00		
Welch & Hall Co.	200 00		
		765 00	
Horseshoeing :—			
Wm. Bell	$168 30		
E. P. Griffin	391 90		
		560 20	
Lighting, Cambridge Elec. Light Co.		24 47	
Lumber :—			
John S. Clary Lumber Co. . .	$329 30		
Geo. W. Gale Lumber Co. . .	160 22		
		489 52	
Paint, etc., Carpenter-Morton Co. .		68 04	
Printing, J. Frank Facey . . .		14 50	
Wagons :—			
T. H. Kneeland	$165 00		
Chas. Van Buskirk . . .	165 00		
		330 00	
Wagon repairs :—			
J. E. Fitzgerald	$327 15		
T. H. Kneeland	194 90		
A. S. Lohnes & Co. . . .	1 00		
Chas. Van Buskirk . . .	70 80		
		593 85	
Total			6,678 51
Excess of Expenditures over Appropriation . .			$2,178 51
Transfer from Contingent Fund to this Department .			2,178 51

Public Ways and Wastes — Continued.

REFUSE COLLECTION AND DISPOSAL — Continued.

STREET DEPARTMENT, COLLECTION OF ASHES. (4 9)

Appropriation			$29,000 00
EXPENDED.			
For laborers, as per pay-rolls		$24,853 46	
Hardware, tools, etc.: —			
Brock Bros.	$ 85		
Durnin, McLaughlin & Co.	76 79		
		77 64	
Harness, repairs, etc.: —			
M. Cavanagh	$30 45		
Joseph Cogan	21 24		
Hugh McCaffrey	36 65		
		88 34	
Hay, grain and straw: —			
R. Costello	$265 68		
J. Cushing & Co.	3,073 45		
W. H. Enos & Co.	70 00		
		3,409 13	
Renewals and repairs: —			
Bicycle repairs: —			
E. H. McDuffee	$11 10		
J. L. Moseley	25		
Hardware: —			
Durnin, McLaughlin & Co.	3 00		
Lead, oil, etc.: —			
Wadsworth, Howland & Co.	35 09		
Repairing axle, H. J. Shaw	16 00		
		65 44	
Sundries: —			
Fuel, Metropolitan Coal Co.	$35 76		
Hardware, Dodge, Haley & Co	10 26		
Horseshoeing	3 25		
Nutriotone, F. P Merrill	12 75		
Supplies, A. Cunningham	3 00		
		65 02	
Teaming, sundry persons		238 75	
Total			28,797 78
Surplus of Appropriation			$202 22
Transfer to Street Department, Bridges, from this Department			200 00
Transfer to Contingent Fund from this Department			$2 22

Public Ways and Wastes — Continued.

4.10 SEWERS AND SEWAGE DISPOSAL.

SEWER DEPARTMENT, CONSTRUCTION, GENERAL. (4.10)

Appropriation	$27,500 00

Department Receipts.	Carried to General Treasury.
For assessments (11.8)	$1,438 86
Permits to drain (4.10)	115 97
	$1,554 83

	EXPENDED.	
For laborers, as per pay rolls		$18,394 04
Bricks, New England Brick Co.		880 51
Carpentry, J. H. Keenan & Son		23 10
Cement, John M. Riley		1,444 38
Dump privilege, Main St. Land Trust		60 00
Filling, John T. Scully & Bro.		108 25
Frames, grates, etc. :—		
Osgood & Witherly		517 45
Fuel, Metropolitan Coal Co.		172 24
Gate, Barbour-Stockwell Co.		12 00
Gravel, Wm. B. Mullen		560 01
Hardware, tools and repairs :—		
Harold L. Bond & Co.	$4 00	
Boston Woven Hose Co.	2 10	
E. T. Bynner	163 93	
James Maitland	36 90	
H. A. Scranton	3 55	
Daniel J. Sullivan	30 70	
		241 18
Iron work, H. J. Shaw		26 99
Lanterns, Brock Bros.		29 00
Lumber, E. D. Sawyer Lumber Co.		1,519 08
Oatmeal, Chas. James		6 75
Oil, Standard Oil Co.		51 50
Piles, John T. Scully & Bro.		43 75
Pipe, D. W. Lewis		2,275 80
Pulleys and bolts, etc. :—		
Carson Trench Machine Co.		25 51
Refund on assessment :—		
Estate of Julia Leahy		2 00
Rubber boots, Robert Josselyn		65 25
Sand, Thos. O'Hara		62 30
Stock and labor, Water Works Dept.		88 20
Teaming, sundry persons		195 00
Traps, Boston Double Catch Basin, Sewer & House Trap Co.		109 00
Use of engine, Geo. E. Worthen		226 00
Use of steam roller, etc., Street Dept.		17 00
Total		27,156 29
Surplus of Appropriation		$343 71
Transfer to Contingent Fund from this Department		343 71

Public Ways and Wastes — Continued.

SEWERS AND SEWAGE DISPOSAL — Continued.

SEWER DEPARTMENT, IMPROVED SEWERAGE. (4.10)

Appropriation		$47,848 24

EXPENDED.

For laborers, as per pay-rolls		$33,090 31	
Bricks, New England Brick Co.		1,988 32	
Cement, John M. Riley		2,018 25	
Expressage		25	
Filling, John T. Scully & Bro.		144 30	
Freight, etc., Boston & Maine R. R.		87 88	
Fuel, Metropolitan Coal Co.		140 27	
Grates, frames, covers, etc.: —			
Barbour-Stockwell Co.	$73 50		
Osgood & Witherly	332 72		
		406 22	
Gravel: —			
John J. Brassill	$68 15		
John T. Culhane	205 92		
Wm. B. Mullen	1,641 21		
John O'Brien	59 40		
John T. Scully & Bro.	84 10		
		2,058 78	
Hardware, tools and repairs, and supplies: —			
Brock Bros.	$27 00		
E. T. Bynner	342 94		
Wm. Elliott & Co.	6 75		
James Maitland	74 90		
D. J. Sullivan	57 30		
		508 89	
Iron work, H. J. Shaw		98 46	
Lanterns and globes, Brock Bros.		43 90	
Loading cars: —			
Jos De Benedetto	$20 25		
Antoni Leonard	3 00		
Wm. B. Mullen	20 25		
		43 50	
Lumber: —			
E. B. James Lumber Co.	$15 56		
E. D. Sawyer Lumber Co.	1,735 91		
		1,751 47	
Mill work and carpentry: —			
J. H. Keenan & Son	$141 94		
H. A. Scranton	23 85		
		165 79	
Oil, Standard Oil Co.		64 05	
Packing, Boston Woven Hose Co.		1 71	
Pipe, etc., D. W. Lewis		3,283 75	
Rent of lot, C. Schneider		5 00	
Repairing crossings, Street Dept.		24 30	
Sand, Thos. O'Hara		438 30	
Stock and labor, Water Works Dept.		117 23	
Amounts brought forward		$46,480 93	$47,848 24

Public Ways and Wastes — Continued.

SEWERS AND SEWAGE DISPOSAL, SEWER DEPARTMENT, IMPROVED SEWERAGE — Concluded.

Amounts brought forward		$46,480 93	$47,848 24
For stone :—			
Street Department	$29 73		
Waltham Trap Rock Co.	57 77		
		87 50	
Teaming, sundry persons		1,051 90	
Use of engine and pumps :—			
John T. Scully & Bro.	$26 00		
Geo. E. Worthen	170 00		
		196 00	
Wheels, Carson Trench Machine Co.		4 80	
Total			47,821 13
Surplus of Appropriation relinquished to General Treasury			$27 11

SEWER DEPARTMENT, MAINTENANCE, GENERAL. (4.10)

Appropriation			$18,000 00
DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.			
For clay	$45 90		
Fertilizer	4 00		
Filling	5 63		
Flagstone	1 00		
Horse	92 92		
Junk	22 93		
Stock and labor, Water Works Dept.	6 85		
	$179 23		
EXPENDED.			
For salaries :—			
Superintendent, T. L. Pike	$2,000 00		
Clerk, Mary E. Rowen	390 00		
		2,390 00	
Laborers, as per pay-rolls		7,709 62	
Advertising, Boston Herald Co.		18 50	
Bricks, New England Brick Co.		229 73	
Canvas cover, Nolan Bros.		57 30	
Carriage hire, Cambridge Coach Co.		4 00	
Car tickets :—			
Boston Elevated Railway Co.		60 00	
Cement, John M. Riley		232 62	
Cleaning catch basins :—			
John Horigan		3,294 00	
Amounts carried forward		$13,995 77	$18,000 00

Public Ways and Wastes — Continued.

SEWERS AND SEWAGE DISPOSAL, SEWER DEPARTMENT, MAINTENANCE, GENERAL — Continued.

Amounts brought forward . .		$13,995 77	$18,000 00
For cleaning sewers, P. J. Healey Co. .		72 00	
Desk, Derby Desk Co. . . .		32 40	
Diaphragms, Edson Mfg. Co. . .		11 40	
Drain work, Wm. Mahoney . .		20 85	
Expressage		2 00	
Frames, grates, covers, etc. :—			
Osgood & Witherly . . .		244 83	
Fuel, Metropolitan Coal Co. .		30 45	
Hardware, tools and repairs, and supplies : —			
Brock Bros.	$4 60		
G. W. Burditt	3 66		
E. T. Bynner	126 84		
Wm. Elliott & Co.	4 50		
Greene & Co.	1 60		
James Maitland	81 97		
		223 17	
Harness and repairs : —			
M. Cavanagh	$47 85		
F. Ivers & Son	7 50		
		55 35	
Hay, grain and straw : —			
E. R. Luke & Co.		669 24	
Horse, J. D. Packard & Sons . .		250 00	
Horseshoeing, John F. Gurry & Sons		148 50	
Hose and packing : —			
Boston Woven Hose Co. . .		11 57	
Iron work, H. J. Shaw . . .		15 76	
Lettering signs, J. L. P. Ackers .		12 00	
Lighting : —			
Cambridge Electric Light Co. .		15 08	
Lumber : —			
Geo. W. Gale Lumber Co. . .	$133 40		
E. B. James Lumber Co. . .	11 15		
E. D. Sawyer Lumber Co. . .	23 26		
		167 81	
Mill work, H. A. Scranton . .		90 03	
Nutriotone, F. P. Merrill Co. . .		7 00	
Oat meal, Chas. James . . .		12 75	
Oil, Standard Oil Co. . . .		31 25	
Oiled clothing, H. M. Sawyer & Son .		29 50	
Piles, John T. Scully & Bro. . .		20 00	
Pipe and fittings, D. W. Lewis . .		153 43	
Amounts carried forward . . .		$16,322 14	$18,000 00

Public Ways and Wastes — Continued.

SEWERS AND SEWAGE DISPOSAL, SEWER DEPARTMENT, MAINTENANCE, GENERAL — Concluded.

Amounts brought forward . .		$16,322 14	$18,000 00
For professional services :—			
Jno. E. Dwyer, M. D. . . .		2 00	
Repairing registers, etc., T. M. Kenney		6 50	
Rubber boots, Robert Josselyn . .		118 35	
Sand, Thos O'Hara		78 30	
Seed meal, L. G. Stone & Co. . .		3 75	
Sewer cleaning machine, P. J. Healey		750 00	
Stationery, printing, etc. :—			
Cambridge Chronicle Co. . .	$2 50		
City Messenger Department . .	8 22		
Cotton & Gould	28 38		
J. Frank Facey	15 50		
		54 60	
Stock and labor, Water Works Dept.		3 17	
Stone, J. J. Cuddihy Stone Co. .		120 00	
Stone and cement, Park Department		7 45	
Teaming, sundry persons . . .		11 50	
Telephone service		43 06	
Traps, Boston Double Catch Basin, Sewer and House Trap Co. . .		25 00	
Use of horse, Prospect Stables . .		5 00	
Wagon and carriage repairs :—			
F. Ivers & Son	$225 00		
Street Department	1 63		
Chas. Waugh & Co. . . .	222 29		
		448 92	
Total			17,999 74
Surplus of Appropriation			$0 26
Transfer to Contingent Fund from this Department .			0 26

DREDGING AT OUTLET OF BRIDGE STREET SEWER. (4.10)

Appropriation	$2,750 00

DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.

For dredging, City of Somerville . .	$1,585 60	
EXPENDED.		
For dredging, Eastern Dredging Co. .	$2,672 78	
Total		$2,672 78
Surplus of Appropriation		$77 22
Transfer to Contingent Fund from this Department .		77 22

Public Ways and Wastes — Continued.

4.12 BRIDGES.

BRIDGE DEPARTMENT. (4.12)

SALARIES AND LABOR.

Appropriation				$10,400 00
EXPENDED.				
For salaries of :—				
Bridge Commissioner and Harbor Master, Wm. J. Marvin		$800 00		
Clerk, Chas. S. Parsons		250 00		
Draw-tenders and assistants		9,388 49		
Total				10,438 49
Excess of Expenditures over Appropriation				$38 49
Transfer from Bridge Department, General, to this Appropriation				50 00
Transfer to Contingent Fund from this Appropriation				$11 51

GENERAL EXPENSES.

Appropriation				$6,500 00
DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.				
For rents, wharfage, etc.		$398 91		
EXPENDED.				
For car tickets :—				
Boston Elevated Railway Co.		50 00		
Stationery, printing, etc. :—				
City of Boston	$12 50			
J. A. Cummings Ptg. Co.	3 34			
J. Frank Facey	1 75			
J. L. Fairbanks & Co.	15 89			
		33 48		
Telephone service		20 17		
Typewriting, A. R. Andrews		6 75		
			110 40	
Brookline Street Bridge :—				
Fuel :—				
Marston Coal Co	$17 63			
Metropolitan Coal Co.	12 50			
		$30 13		
Hardware and supplies :—				
E. T. Bynner	$11 10			
Sundry persons	8 58			
		19 68		
Amounts carried forward		$49 81	$110 40	$6,500 00

Public Ways and Wastes — Continued.

BRIDGES, BRIDGE DEPARTMENT, GENERAL EXPENSES — Continued.

Amounts brought forward . .	$49 81	$110 40	$6,500 00
For lighting :—			
Brookline Gas Light Co. $127 75			
Camb. Elec. Light Co. 50 02			
	177 77		
Lumber :—			
C. E. Dearborn . . $43 24			
Wm. H. Wood & Co. . 2 35			
	45 59		
Repairing bridges :—			
John T Scully & Bro. $83 18			
H. J. Shaw . . . 3 13			
	86 31		
		359 48	
Craigie Bridge :—			
Cash expended for sundries :—			
A. W. Smith	$9 75		
Damages, Enoch Krasnow . .	7 50		
Fittings, A. M. Morton & Co. .	5 08		
Fuel :—			
Marston Coal Co. . $80 51			
Metropolitan Coal Co. . 124 20			
	$204 71		
Furnishings and bedding :—			
Phillips Bros. & Co. . . .	5 50		
Hardware, tools and supplies :—			
Dodge, Haley & Co. . $18 35			
L. A. Stingel . . 60 11			
Sundry persons . . 4 60			
	83 06		
Ice, Independent Ice Co. . .	4 50		
Lighting :—			
Camb. Elec. Light Co. $250 02			
Edison Elec. Illum. Co. 62 05			
	312 07		
Lumber :—			
John S. Clary Lumber Co. $206 93			
E. B. James Lumber Co. 80 81			
Geo. McQuesten & Co. . 180 09			
John M. Woods & Co. . 14 68			
	482 51		
Oil and polish :—			
The Alden Speare's Sons Co. .	5 25		
Paving, Austin Ford & Son . .	78 49		
Repairing bridges :—			
L. M. Ham & Co. . $11 83			
John T. Scully & Bro. . 511 97			
H. J. Shaw . . . 81 77			
	605 57		
Use of water, Water Works Dept.	18 81		
Watering bridge, Street Dept. .	31 00		
		1,853 80	
Amounts carried forward . . .		$2,323 68	$6,500 00

Public Ways and Wastes — Continued.

BRIDGES, BRIDGE DEPARTMENT, GENERAL EXPENSES — Continued.

Amounts brought forward . .		$2,323 68	$6,500 00
For Harvard Bridge :—			
Current to draw :—			
Cambridge Electric Light Co. .	$142 50		
Cleaning bridge :—			
Thos. R. Ingraham . $11 50			
Thos. O'Hara . . 11 37			
	22 87		
Damage to carriage :—			
Wm. H. Brickley . . .	15 00		
Fuel : —			
Marston Coal Co. . $27 88			
Metropolitan Coal Co. 30 70			
	58 58		
Globes, Union Glass Co. . .	12 75		
Hardware and supplies : —			
E. T. Bynner . . $5 82			
F. A. White . . 13 13			
Sundry persons . . 6 48			
	25 43		
Ice, Boston Ice Co. . . .	3 60		
Ladder : —			
C. W. H. Moulton & Co. . .	5 25		
Lighting : —			
Camb. Elec. Light Co. . $630 00			
Edison Elec. Illum. Co. 510 00			
	1,140 00		
Lumber : —			
E. B. James Lumber Co. $71 17			
Geo. McQuesten Co. . 18 09			
Wm. H. Wood & Co. . 37 33			
	126 59		
Printing, J. Frank Facey . .	2 25		
Repairing bridges : —			
John T. Scully & Bro. $344 12			
H. J. Shaw . . . 19 60			
	363 72		
Salt, Eastern Salt Co. . . .	6 12		
		1,924 66	
North Harvard Bridge : —			
Bedding, Phillips Bros. & Co. .	$5 88		
Fuel, Metropolitan Coal Co. . .	11 95		
Grease, Geo. Wm. Waite Co. .	7 50		
Hardware, tools, etc. . . .	3 60		
Lumber : —			
E. B. James Lumber Co. $52 78			
Wm. H. Wood & Co. . 43 78			
	96 56		
Repairing bridge, John B. Byrne .	70 00		
		195 49	
Amounts carried forward . . .		$4,443 83	$6,500 00

Public Ways and Wastes — Continued.

BRIDGES, BRIDGE DEPARTMENT, GENERAL EXPENSES — Continued.

Amounts brought forward . .		$4,443 83	$6,500 00
For Prison Point Bridge :—			
Bedding, J. H. Corcoran & Co. .	$3 73		
Fuel :—			
Marston Coal Co. . $20 50			
Metropolitan Coal Co. 9 37			
	29 87		
Hardware and supplies :—			
Thos. J. Emery . . $29 73			
Geo. W. Hobbs . . 5 35			
L. A. Stingel . . 14 06			
Sundry persons . . 7 90			
	57 04		
Lumber :—			
E. B. James Lumber Co. $30 00			
E. D. Sawyer Lumber Co. 34 82			
	64 82		
Repairing bridge :—			
John T. Scully & Bro. . $94 13			
H. J. Shaw . . . 33 00			
	127 13		
Water tank, Alex. Campbell	8 08		
		290 67	
River Street Bridge :—			
Fuel, Metropolitan Coal Co. . .	$9 38		
Hardware and supplies :—			
E. T. Bynner . . $6 47			
F. A. White . . 10 62			
	17 09		
Lighting, Cambridge Elec. Light Co.	50 00		
Lumber :—			
Geo. W. Gale Lumber Co. $12 03			
E B. James Lumber Co. 64 41			
Wm. H. Wood & Co. . 5 73			
	82 17		
Oil, grease, etc. :—			
Geo. Wm. Waite Co. . . .	7 45		
Printing, J. Frank Facey . .	2 25		
Repairing bridges :—			
John B. Byrne . . $70 11			
John T. Scully & Bro. 202 02			
H. J. Shaw . . . 8 57			
	280 70		
Teaming	63		
		449 67	
West Boston Bridge :—			
Cleaning bridge :—			
Austin Ford & Son . . .	$173 00		
Amounts carried forward . .	$173 00	$5,184 17	$6,500 00

Public Ways and Wastes — Continued.

BRIDGES, BRIDGE DEPARTMENT, GENERAL EXPENSES — Concluded.

Amounts brought forward . .	$173 00	$5,184 17	$6,500 00
For fuel :—			
Marston Coal Co. . $20 49			
Metropolitan Coal Co. . 23 90			
	44 39		
Hardware, tools and repairs . .	2 86		
Ice, Boston Ice Co.	3 00		
Lighting :—			
Camb. Elec. Light Co. . $250 02			
Edison Elec. Illum. Co. 372 30			
	622 32		
Oil, Standard Oil Co. . . .	3 35		
Salt, Eastern Salt Co. . . .	3 75		
		852 67	
Western Avenue Bridge :—			
Fuel, Metropolitan Coal Co. . .	$3 12		
Hardware, tools and supplies :—			
Brock & Eaton . . $6 86			
E. T. Bynner . . 6 00			
F. A. White . . 4 43			
	17 29		
Lighting, Cambridge Elec. Light Co.	49 98		
Lumber :—			
E. B. James Lumber Co. $30 86			
Wm. H. Wood & Co. . 92 89			
	123 75		
Repairing bridges :—			
John B. Byrne . . $5 80			
John T. Scully & Bro. . 164 33			
H. J. Shaw . . . 15 99			
	186 12		
Teaming	62		
		380 88	
Total		$6,417 72	

SUMMARY.

For General Expenses	$110 40	
Brookline Street Bridge . . .	359 48	
Craigie Bridge	1,853 80	
Harvard Bridge	1,924 66	
North Harvard Bridge . . .	195 49	
Prison Point Bridge	290 67	
River Street Bridge	449 67	
West Boston Bridge	852 67	
Western Avenue Bridge . . .	380 88	
		6,417 72
Surplus of Appropriation		$82 28
Transfer from this Department to Bridge Department, Salaries		50 00
Transfer from this Department to Contingent Fund .		$32 28

Public Ways and Wastes — Continued.

BRIDGES — Continued.

CAMBRIDGE BRIDGE. (4.12)

Appropriation			$156,098 32
	EXPENDED.		
For salaries of: —			
Commissioner, E. D. Leavitt	$1,250 00		
Chief Engineer, Wm. Jackson	1,500 00		
Assistant Secretary: —			
Edw. A. Counihan	125 00		
Assistant Engineers: —			
John E. Cheney	1,000 00		
L. F Cutter	422 91		
F. H. Fay	117 08		
G. E. Harkness	658 00		
S. A. Jubb	665 14		
H. F. Sawtelle	586 86		
E. C. Sherman	586 89		
M. G. Woodward	900 00		
Draughtsman: —			
A. F. Bildt	50 00		
E. L. Russell	58 00		
Axemen: —			
John Mountain	82 13		
F. J. Steele	360 00		
Inspectors: —			
J. P. Carroll	850 00		
J. R. Hews	1,075 00		
Messenger, C. P. Collins	497 50		
Rodman, J. E. Martin	359 00		
Transitmen: —			
Ed. Barnwell	189 00		
J. F. Gorman	551 36		
F. M. Leonard	571 50		
Boatmen: —			
James Celeste	111 01		
B. F. Fallon	395 00		
John Mountain	27 00		
W. J. Sheehan	83 00		
Clerical services: —			
Jas. A. McKibben	125 00		
Chas. S. Parsons	125 00		
		$13,321 38	
Advertising		15 52	
Analysis of cement: —			
Henry J. Williams		220 00	
Amounts carried forward		$13,556 90	$156,098 32

Public Ways and Wastes — Continued.

BRIDGES, CAMBRIDGE BRIDGE — Continued.

Amounts brought forward . .		$13,556 90	$156,098 32
For beams, New England Structural Co.		157 61	
Blue prints, etc., Chas. E. Moss .		52 00	
Borings, Gow & Foss . . .		218 98	
Carpentry, John T. Scully & Bro .		549 93	
Car tickets :—			
Boston Elevated Railway Co. .		2 50	
Cash expended for traveling expenses and sundries :—			
M. G. Woodward		106 68	
Dredging ship channel :—			
Bay State Dredging Co. . . .		4,851 00	
Expenses of commissioners and engineers to Pittsburg, etc. :—			
Wm. Jackson		250 00	
Execution of Court, Geo. B. Roberts		33 05	
Fuel, Coleman Bros.		21 53	
Hardware, tools and supplies :—			
Dodge, Haley & Co. . . .	$105 50		
Sundry persons	3 74		
		109 24	
Hip boots, Hosmer, Codding & Co. .		6 92	
Ice, Fresh Pond Ice Co. . . .		10 77	
Inspecting work, Wm. J. Marvin .		175 00	
Ladders, Holbrook, Cabot & Rollins .		71 27	
Leveling instrument :—			
C. L. Berger & Sons . . .		45 00	
Lumber :—			
John S. Clary Lumber Co. . .	$16 24		
E. B. James Lumber Co. .	1,316 34		
Geo. H. Jennings	4 00		
Geo. McQuesten Co. . . .	16 68		
Wm. H. Wood & Co. . . .	47 11		
		1,400 37	
Model of pier, John Evans & Co. .		68 00	
Piers :—			
Two masonry abutments :—			
Holbrook, Cabot & Rollins . .	$67,694 29		
Setting upper stonework on ten piers :—			
Holbrook, Cabot & Rollins . .	11,691 59		
Interior walls of ten piers :—			
Holbrook, Cabot & Rollins . .	1,701 00		
Amounts carried forward . . .	$81,086 88	$21,686 75	$156,098 32

Public Ways and Wastes — Continued.

BRIDGES, CAMBRIDGE BRIDGE — Concluded.

Amounts brought forward . .	$81,086 88	$21,686 75	$156,098 32
For upper stonework for eight masonry piers :—			
Rockport Granite Co. . .	22,879 44		
Upper stonework for two masonry piers :—			
Rockport Granite Co. . . .	25,349 40		
Additional upper stonework for ten piers :—			
Rockport Granite Co. . . .	756 80		
		130,072 52	
Plans, etc. :—			
Professional services :—			
E. M. Wheelwright . .	$1,200 00		
Draughting	787 81		
		1,987 81	
Printing :—			
City of Boston	$1 72		
J. Frank Facey	10 00		
		11 72	
Repairing street, corner First and Main Streets :—			
Holbrook, Cabot & Rollins . .		181 92	
Retainer, Watson G. Cutter . .		100 00	
Sanitary repairs, City of Boston .		30 20	
Setting up stove and repairing pipe :—			
Wm. H. Griffiths & Co. . . .		14 51	
Shifting stone :—			
Holbrook, Cabot & Rollins . .		5 13	
Telephone service		38 54	
Total			154,129 10
Surplus of Appropriation relinquished to General Treasury			$1,969 22

PAVING HARVARD BRIDGE.

Appropriation			$283 96
EXPENDED.			
For hardware, E. T. Bynner . .		$2 95	
Lumber : —			
Geo. W. Gale Lumber Co. . .	$29 14		
Geo. H. Jennings	4 67		
Wm. H. Wood & Co. . . .	247 20		
		281 01	
Total .			283 96

Public Ways and Wastes — Continued.

STREET DEPARTMENT, BRIDGES. (4.12)

Appropriation			$3,000 00
EXPENDED.			
For salaries of draw-tenders :—			
John Gaughan	$928 71		
J. F. Powers	1,026 63		
Laborers, as per pay rolls	259 79		
		$2,215 13	
First St., renewals and repairs :—			
Hardware, Dodge, Haley & Co.	$3 77		
Lumber :—			
Geo. W. Gale Lumber Co. $1 33			
Wm. H. Wood & Co. 9 24			
	10 57		
Sundries	1 50		
		15 84	
Third St., renewals and repairs :—			
Hardware, tools and supplies :—			
P. J. Carmichael $11 20			
Dodge, Haley & Co. 3 77			
Durnin, McLaughlin & Co. 3 25			
	$18 22		
Iron work, H. J. Shaw	9 32		
Lumber :—			
John S Clary Lumber Co. $130 97			
E. B. James Lumber Co. 166 17			
Geo. McQuesten Co. 40 59			
Wm. H. Wood & Co. 5 84			
	343 57		
Piles, John T. Scully & Bro.	390 10		
Plates, washers and nuts :—			
Boston Bridge Works	36 00		
Sundries	1 10		
		798 31	
Sixth St., renewals and repairs :—			
Hardware, Dodge, Haley & Co	$3 77		
Lumber, John S. Clary Lumber Co.	5 00		
Sundries	1 20		
		9 97	
Walden St., renewals and repairs :—			
Repairing bridge :—			
Boston Bridge Works		160 75	
Total			3,200 00
Excess of Expenditures over Appropriation			$200 00
Transfer to this Department from Street Department, Collection of ashes			200 00

Public Ways and Wastes — Concluded.

4.13 MISCELLANEOUS.

CIVIL SERVICE DEPARTMENT. (4.13)

Appropriation			$250 00
EXPENDED.			
For salary of clerk, Harry L. Lincoln		$200 00	
Stationery: —			
Wm. M. L. McAdams	$41 15		
Thorp & Martin Co.	2 45		
		43 60	
Sundries		1 45	
Total			245 05
Surplus of Appropriation			$4 95
Transfer from this Department to Contingent Fund			4 95

5. PUBLIC INDUSTRIES AND INVESTMENTS.

WATER WORKS.

CONSTRUCTION, GENERAL. (5.1)

Appropriation	$11,025 61
Additional appropriation	1,600 00
	$12,625 61

DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.

For grass	$43 65
Iron	63 75
Junk	1,488 55
Labor and materials	4,131 90
	$5,727 85

EXPENDED.

For cutting pipe, Walter W. Field		$5 00	
Examining titles, Wm. V. Thompson		40 00	
Expressage :—			
Dodge Express Co.	$9 44		
Sundry persons	1 25		
		10 69	
Freight :—			
Boston & Albany R. R.	$264 79		
New York, New Haven & Hartford R. R.	1 05		
		265 84	
Laborers, as per pay-rolls		4,542 01	
Lead, Waite, Ranlet & Co.		95 81	
Lumber, Geo. W. Gale Lumber Co.		7 80	
Meters, connections, etc. :—			
Hersey Manufacturing Co.	$2 40		
Union Water Meter Co.	12 00		
		14 40	
Pipe and fittings :—			
Builders Iron Foundry	$89 25		
Camden Iron Works	2,683 20		
Davis & Farnum Manufacturing Co.	53 49		
A. P. Smith Manfacturing Co.	25 90		
Walworth Manufacturing Co.	314 47		
		3,166 31	
Repairing tools. James Maitland		16 38	
Repairing catch basin, Sewer Dept.		6 85	
Specifications :—			
N. E. Water Works Association		1 20	
Stone, Street Department		21 71	
Teaming, sundry persons		5 00	
Use of steam roller, Street Dept.		40 12	
Amounts carried forward		$8,239 12	$12,625 61

Public Industries and Investments — Continued.

WATER WORKS, CONSTRUCTION, GENERAL — Concluded.

Amounts brought forward . .		$8,239 12	$12,625 61
For valves and hydrants :—			
Chapman Valve Mfg. Co. . .	$126 13		
Ludlow Valve Mfg. Co. . . .	64 00		
		190 13	
Total			8,429 25
Surplus of Appropriation			$4,196 36
Transfer to Water Works, Construction, Meters, from this Department			750 00
Balance relinquished to General Treasury . . .			$3,446 36

CONSTRUCTION, METERS. (5.1)

Appropriation			$1,000 00
Additional appropriation			1,000 00
			$2,000 00
EXPENDED.			
For laborers as per pay-rolls . .		$538 50	
Advertising :—			
Cambridge Chronicle Co. . . .		4 21	
Expressage :—			
Dodge Express Co. . . .	$10 69		
Sundry persons	2 40		
		13 09	
Lumber, E. D. Sawyer Lumber Co. .		22 94	
Meters : —			
Hersey Manufacturing Co. . .	$443 20		
Neptune Meter Co. . . .	383 85		
Thomson Meter Co. . . .	686 41		
Moses P. White	8 40		
Henry R. Worthington . . .	25 20		
		1,547 06	
Valves, etc. : —			
Walworth Manufacturing Co. .		86 71	
Total			2,212 51
Excess of Expenditures over Appropriation . .			$212 51
Transfer from Water Works Construction, General, to this Department			750 00
Balance relinquished to General Treasury . . .			$537 49

Public Industries and Investments — Continued.

WATER WORKS — Continued.

HOBBS' BROOK ACCOUNT, GENERAL. (5.1)

Appropriation		$875 00

EXPENDED.

For cash expended in Gallagher case: —			
G. A. A. Pevey	$20 84		
Frames and covers: —			
Waltham Foundry Co.	5 00		
Lumber, Butterick Lumber Co.	4 80		
Mason work, James E. Burke	106 00		
Repairing drain at Blood Estate: —			
J. Cushing & Co.	12 57		
Services as stenographer: —			
Isaac I. Doane	8 40		
Teaming, Geo. W. Thompson	26 00		
Use of horse and carriage: —			
W. E. Denham	6 00		
Total			189 61
Surplus of Appropriation relinquished to General Treasury			$685 39

HOBBS' BROOK ACCOUNT, LAND SETTLEMENTS. (5.1)

Appropriation			$2,000 00
Additional appropriation			10,000 00
			$12,000 00

EXPENDED.

For examination of title: —			
C. F. French		$15 00	
Executions of Court: —			
Mary Francis Child	$1,800 00		
Joseph Evans	9,700 00		
		11,500 00	
Services in Gallagher case: —			
G. F. Tewksbury		25 00	
Total			11,540 00
Surplus of Appropriation relinquished to General Treasury			$460 00

Public Industries and Investments — Continued.

WATER WORKS — Continued.

HOBBS' BROOK ACCOUNT, SERVICES OF CITY SOLICITOR. (5.1)

Appropriation		$500 00
EXPENDED.		
For services of City Solicitor: —		
Law Department	$500 00	
Total		500 00

STONY BROOK MAIN. (5.1)

Appropriation		$5,000 00
Additional appropriation		6,000 00
		$11,000 00
EXPENDED.		
For laborers, as per pay rolls	$575 15	
Bricks, New England Brick Co.	36 75	
Carpentry, W. H. Norris	52 00	
Carriage hire, Mrs. Geo. A. Thurston	2 00	
Cement: —		
Geo. W. Gale Lumber Co. $6 00		
D. W. Lewis 13 16		
	19 16	
Ejectors, Hancock Inspirator Co.	13 50	
Fittings, castings, etc.: —		
Davis & Farnum Mfg Co. $21 95		
G. W. Hayden 4 88		
Walworth Manufacturing Co. 6 09		
	32 92	
Grate, Barbour-Stockwell Co.	8 40	
Hose and couplings, Edson Mfg. Co.	29 45	
Labor, A. E. Baxter	38 37	
Meter frame, Daniel Russell	30 00	
Pipe, D. W. Lewis	9 60	
Printing, Cambridge Chronicle Co.	10 00	
Repairs: —		
Newton & Watertown Gas Light Co.	28 07	
Sand and teaming, T. Quirk	15 75	
Services as engineer: —		
Freeman C. Coffin	1,746 00	
Steel, Aberthaw Construction Co.	4 19	
Sundries	1 51	
Teaming pipe, Snow Forwarding Co.	19 23	
Tube, etc., Builders Iron Foundry	810 13	
Total		3,482 18
Surplus of Appropriation relinquished to General Treasury		$7,517 82

Public Industries and Investments — Continued.

WATER WORKS — Continued.

MAINTENANCE.

SALARIES OF SUPERINTENDENT, REGISTRAR, CLERK OF BOARD AND CLERICAL ASSISTANCE. (5.1)

Appropriation			$6,604 00
EXPENDED.			
For salaries of :—			
Superintendent, E. C. Brooks		$2,140 42	
Registrar, W. H. Harding		2,166 66	
Clerical assistance :—			
H. L. Lincoln	$1,200 00		
H. F. Milligan	780 00		
M. M. Robbins	624 00		
F. W. Cone	180 00		
		2,784 00	
Temporary inspector :—			
Wm. F. Chisholm		12 50	
Total			7,103 58
Excess of Expenditures over Appropriation			$499 58
Transfer from Water Works, Maintenance, Stony Brook			500 00
Balance relinquished to General Treasury			$0 42

GENERAL EXPENSES AND RENT. (5.1)

Appropriation	$20,200 00
Additional appropriation	200 00
	$20,400 00

DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.

For fruit	$15 75	
Grass	384 00	
Oil barrels	1 15	
Old materials	33 95	
Plants	224 49	
Rates, fines, etc.	341,532 64	
Supplies	4,339 47	
Use of meter	3 00	
	$346,534 45	
Amount carried forward		$20,400 00

Public Industries and Investments — Continued.

WATER WORKS, MAINTENANCE, GENERAL EXPENSES AND RENT — Continued.

Amount brought forward . .			$20,400 00
	EXPENDED.		
For salaries :—			
Assistant superintendent :—			
Chas. B. Parker	$1,360 00		
Treas. of Water Loan Sinking Fund :—			
Wm. W. Dallinger . . .	200 00		
Inspectors :—			
F. G. Davis	1,000 00		
C. E. McGuire	819 63		
Machinist, I. H. Henderson . .	910 00		
Mechanic, B. P. Doe . . .	1,040 00		
Time keeper, F. W. Cone . .	324 00		
Laborers as per pay rolls . .	11,468 70		
		17,122 33	
Atlas, G. W. Bromley & Co. . .		30 00	
Bricks, Henry S. Harris & Son . .		4 40	
Carpentry, C. S. Newcomb . .		69 44	
Carriage hire, G. F. Whiting & Co. .		22 00	
Carriage and wagon repairs :—			
Chas. Waugh & Co. . . .		184 27	
Car tickets : —			
Boston Elevated Railway Co. .		190 00	
Cleaning carpets, Worcester Bros. .		9 26	
Clock repairs, Jas. A. Rice . .		2 00	
Directories :—			
W. A. Greenough & Co. . .	$3 50		
Sampson, Murdock & Co. . .	6 00		
		9 50	
Drain work, Samuel McCulloch .		57 95	
Expressage		12 03	
Fuel, Coleman Bros.		29 64	
Furniture, Globe-Wernicke Co. .		11 00	
Hardware, tools, machinery and repairs :—			
Geo F. Blake Mfg. Co. . . .	$3 04		
G. W. Burditt	10 26		
E. T. Bynner	59 90		
Wm. Campbell & Co. . . .	2 63		
Chandler & Farquhar . . .	18 83		
Chapman Valve Mfg. Co. . .	2 91		
Davis & Farnum Mfg. Co. . .	41 80		
Dodge, Haley & Co. . . .	12 88		
Edson Mfg. Co.	4 20		
Huey Bros.	10 80		
Amounts carried forward . . .	$167 25	$17,753 82	$20,400 00

Public Industries and Investments — Continued.

WATER WORKS, MAINTENANCE, GENERAL EXPENSES AND RENT — Continued.

Amounts brought forward . .	$167 25	$17,753 82	$20,400 00
For Henry F Jenks	6 10		
James Maitland	63 71		
Ross Valve Co.	4 00		
Walworth Mfg. Co. . . .	115 51		
Sundry persons	8 78		
		365 35	
Harness and repairs, and horse clothing :—			
W. H. Roberts		77 75	
Hay, grain, etc., J. Cushing & Co. .		596 87	
Heating apparatus, Brock Bros. .		19 56	
Horseshoeing :—			
Wm. Balmer	$74 25		
John F Gurry & Sons . . .	12 75		
Thos. Smith & Sons . . .	6 50		
Street Department	99 80		
		193 30	
Hose and rubber goods :—			
American Rubber Co . . .	$ 92		
Boston Woven Hose Co. . .	12 49		
		13 41	
Ice, Fresh Pond Ice Co. . . .		6 00	
Inspection expenses :—			
Carriage hire :—			
J. J. Callahan	$6 00		
Cambridge Coach Co. . .	12 00		
John J. Corkery	6 00		
Chas. W. Dailey	6 00		
Geo E. Francis	6 00		
T. W. Hillier & Co. . . .	6 00		
Frank P. Merrill	6 00		
Fred. D. Norton	6 00		
G. F. Whiting & Co. . . .	12 00		
Cigars, F. L. Beunke . . .	14 50		
Dinners, Woodland Park Hotel .	39 00		
Special cars :—			
Boston Elevated Railway Co. .	5 00		
Newton Street Railway Co. .	5 00		
Transportation :—			
Boston & Maine R. R. . .	3 00		
		132 50	
Lighting, etc. :—			
Cambridge Electric Light Co. .	$55 00		
Cambridge Gas Light Co. . .	9 20		
		64 20	
Lighting apparatus :—			
Globe Gas Light Co. . . .		2 20	
Lumber and cement :—			
Geo. W. Gale Lumber Co. . .	$26 07		
E D. Sawyer Lumber Co. . .	11 98		
		38 05	
Amounts carried forward . . .		$19,263 01	$20,400 00

Public Industries and Investments — Continued.

WATER WORKS, MAINTENANCE, GENERAL EXPENSES AND RENT — Concluded.

Amounts brought forward . .		$19,263 01	$20,400 00
For meters and repairs:—			
G. W. Hayden	$1 63		
Hersey Manufacturing Co. . .	61 80		
National Meter Co. . . .	28 44		
Neptune Meter Co. . . .	10 30		
H. J. Shaw	3 50		
Union Water Meter Co. . . .	9 80		
		115 47	
Oil, Standard Oil Co.		27 95	
Painting, papering, etc:—			
Chas. Atkins & Co. . . .	$9 75		
O. C. Longee & Co. . . .	19 08		
		28 83	
Photograph covers:—			
Chas. W. Sever & Co. . . .		27 75	
Plumbing:—			
Greene & Co.	$2 50		
Levi Hawkes	4 38		
H. L. Rose	2 58		
Scott & Cox	4 22		
		13 68	
Rent, Public Property, City Buildings		1,200 00	
Repairing siphon:—			
Andrew A. Magnus . . .	$20 70		
Geo. W. Townsend . . .	310 00		
		330 70	
Sealing;—			
Sealer of Weights and Measures .		3 89	
Stationery, printing, etc.:—			
Cambridge Chronicle Co. . .	$221 25		
City Messenger Department . .	37 14		
Cotton & Gould	44 00		
J. A. Cummings Printing Co. .	48 15		
W. M. L. McAdams . . .	40 00		
Thorp & Martin Co. . . .	39 14		
		429 68	
Subscriptions:—			
Engineering News Publishing Co. .	$5 00		
Geo. E. French	6 00		
Water and Gas Review Publishing Co.	1 00		
		12 00	
Sundries		6 45	
Telephone service		130 49	
Use of horse and carriage:—			
G. F. Whiting & Co. . . .		60 00	
Total			21,649 90
Excess of Expenditures over Appropriation . .			$1,249 90
Transfer from Water Works, Maintenance, Stony Brook			1,250 00
Balance relinquished to General Treasury . . .			$0 10

Public Industries and Investments — Continued.

WATER WORKS, MAINTENANCE — Continued.

PUMPING, SALARIES AND LABOR. (5.1)

Appropriation	$7,000 00

EXPENDED.

For salaries of :—		
Engineer E. I. Harris	$1,800 28	
Assistant Engineer, W. H. Blaisdell	1,040 00	
Laborers, as per pay-roll	4,053 19	
Total		6,893 47
Balance relinquished to General Treasury		$106 53

PUMPING, GENERAL EXPENSES.

Appropriation	$12,000 00
Additional appropriation	5,500 00
	$17,500 00

EXPENDED.

For advertising :—			
Cambridge Chronicle Co.		$2 24	
Blue slate :—			
Heath & Milligan Manufacturing Co.		5 00	
Carpentry, C. S. Newcomb		50 10	
Carting coal, James Gray		115 00	
Electrical work and supplies :—			
F. Bryant & Co.	$44 00		
Stuart-Howland Co.	6 19		
		50 19	
Engine and boiler supplies, and repairs :—			
Barbour-Stockwell Co	$42 70		
Geo. F. Blake Manufacturing Co.	83 88		
A. W. Chesterton & Co.	106 63		
Clifton Manufacturing Co.	23 40		
Greenwood & Daggett Co.	6 25		
Greene & Co.	14 35		
Grundy Brass Works	6 33		
H. W. Johns-Manville Co.	11 22		
Keystone Lubricating Co.	89 16		
Knowles Steam Pump Works	4 20		
Wm. B. Merrill & Co.	23 00		
W. W. Reid Manufacturing Co.	7 50		
Roberts Iron Works Co.	22 81		
H. J. Shaw	9 61		
Amounts carried forward	$451 04	$222 53	$17,500 00

Public Industries and Investments — Continued.

WATER WORKS, MAINTENANCE, PUMPING, GENERAL EXPENSES— Concluded.

Amounts brought forward . .	$451 04	$222 53	$17,500 00
For Alden Speare's Sons Co. . .	78 43		
Standard Packing Mfg. Co. . .	4 06		
Star Brass Mfg. Co. . . .	9 05		
The Atlantic Works . . .	30 77		
The Garlock Packing Co. . .	3 72		
Union Glass Co.	3 50		
Walworth Mfg. Co. . . .	15 98		
Watts Regulator Co. . . .	5 25		
Sundry persons	9 50		
		611 30	
Expressage		19 60	
Freight, Boston & Maine R. R. . .		270 18	
Fuel :—			
Bay State Fuel Co. . . .	$1,480 27		
Coleman Bros.	7,911 47		
Garfield & Proctor Coal Co. . .	1,625 35		
Metropolitan Coal Co. . . .	333 30		
Overseers of the Poor . . .	426 83		
Street Department	450 11		
		12,227 33	
Hardware, tools and repairs, and supplies :—			
Jos. Breck & Sons	$10 70		
Brock Bros.	6 60		
E. T. Bynner	45 24		
Chandler & Farquhar . . .	6 60		
James Maitland	10 19		
H. J. Shaw	14 60		
Jas. H. Wyeth & Co. . . .	4 70		
Sundry persons	3 76		
		102 39	
Inspecting boilers, S. C. Baxter .		2 00	
Lumber, Geo. W. Gale Lumber Co. .		18 94	
Oil, polish, etc. :—			
Heaney Manufacturing Co. . .	$1 25		
Reynolds Oil Co.	24 13		
Standard Oil Co.	19 30		
The Butcher Polish Co. . . .	10 30		
W. A. Wood Co.	82 00		
		136 98	
Repairing roofs, conductors, etc. :—			
John J. Blevins		126 85	
Repairing side track :—			
Boston & Maine R. R Co. . .		3 63	
Telephone service		69 51	
Total			13,811 24
Surplus of Appropriation			$3,688 76
Transfer from Water Works, Maintenance, Stony Brook			1,000 00
Balance relinquished to General Treasury . . .			$4,688 76

Public Industries and Investments — Continued.

WATER WORKS, MAINTENANCE — Continued.

FRESH POND RESERVOIR. (5.1)

Appropriation		$5,000 00
EXPENDED.		
For laborers as per pay-rolls	$5,517 13	
Barrels :—		
American Stave and Cooperage Co.	13 50	
Bicycle repairs, J. L. Moseley	4 50	
Blanket, L. C. Chase & Co.	2 00	
Carpentry, C. S. Newcomb	1 33	
Disinfectants, etc. :—		
Bowker Insecticide Co.	47 48	
Expressage	3 55	
Fire arms Geo. S. Saunders & Co.	13 50	
Harness and repairs :—		
Wm. H. Roberts	18 50	
Hardware, tools and repairs, and supplies :—		
Jos. Breck & Sons $16 30		
Brock Bros. 7 18		
Burditt & Williams Co. 7 25		
E. T. Bynner 12 10		
M. A. Carpenter 3 28		
Sundry persons 80		
	46 91	
Hay, grain, etc., J. Cushing & Co.	57 52	
Lumber, Geo. W. Gale Lumber Co.	12 72	
Plants, Mt Desert Nurseries	12 25	
Stock and labor, painting boat :—		
O. C. Lougee & Co.	15 71	
Teaming, sundry persons	68 75	
Tires, Boston Woven Hose Co.	5 35	
Total		5,840 70
Excess of Expenditures over Appropriation		$840 70
Transfer from Water Works, Maintenance, Stony Brook, to this Department		1,000 00
Balance relinquished to General Treasury		$159 30

Public Industries and Investments — Continued.

WATER WORKS, MAINTENANCE — Continued.

HOBBS' BROOK RESERVOIR. (5.1)

Appropriation			$1,450 00
EXPENDED.			
For salary of keeper, J. E. Bryant	$728 00		
Laborers, as per pay-rolls	41 50		
		769 50	
Carriage and harness repairs :—			
Peter Perry		10 20	
Hardware and supplies, J. A. Higgins		12 42	
Hay, grain, etc :—			
J. Cushing & Co.	$69 30		
Geo. B. Pope & Co.	7 80		
		77 10	
Horseshoeing, etc., F. G. Helm		24 91	
Professional services :—			
A. Greenwood, M. D.		240 00	
Telephone service		68 94	
Total			1,203 07
Surplus of Appropriation relinquished to General Treasury			$246 93

PAYSON PARK RESERVOIR. (5.1)

Appropriation			$875 00
EXPENDED.			
For laborers, as per pay-rolls		$780 00	
Brooms, E. T. Bynner		1 80	
Cement :—			
Geo. W. Gale Lumber Co.	$2 75		
D W. Lewis	4 76		
		7 51	
Electrical work, F. Bryant & Co.		4 15	
Fuel, Osgood & Wendell		7 25	
Hardware and supplies, E. T. Bynner		1 10	
Total			801 81
Surplus of Appropriation relinquished to General Treasury			$73 19

Public Industries and Investments—Continued.

WATER WORKS, MAINTENANCE—Continued.

STONY BROOK RESERVOIR. (5.1)

Appropriation		$5,000 00
Additional appropriation		3,000 00
		$8,000 00

EXPENDED.

For salary of gateman, Silas Baxter	$910 00		
Laborers, as per pay-rolls	1,715 80		
		$2,625 80	
Car tickets:—			
Boston Elevated Railway Co.		35 00	
Cleaning cess-poll, T. E. Coburn		91 90	
Diaphragms, Edson Mfg. Co.		9 50	
Expressage		55	
Fuel, G. F. Frost		4 28	
Globes, Globe Gas Light Co.		3 10	
Gravel and teaming, T. Quirk		61 00	
Harness repairs, Peter Perry		1 85	
Hay, grain, etc., J. Cushing & Co.		87 41	
Hardware, tools and repairs, and supplies:—			
Silas Baxter	$ 15		
E. T. Bynner	21 47		
G. F. Frost	1 25		
J. A. Higgins	17 36		
Jas. Maitland	10 43		
		50 66	
Horseshoeing:—			
M. E. Crouse	$19 80		
G. A. Hirtle	13 40		
		33 20	
Ice, Waltham Ice Co.		1 15	
Labor on water-shed, A. E. Baxter		30 00	
Labor, repairing cess-pool, mowing, etc.:—			
T. E. Coburn		19 00	
Lanterns, Peter Gray & Sons		10 00	
Lumber, Buttrick Lumber Co.		210 35	
Mason work, Frank J. O'Reilly		22 40	
Pipe, etc., Fred. H. Kirwin		2 58	
Professional services:—			
A. Greenwood, M. D.		200 00	
Repairing water pipe:—			
Boston & Maine R. R.		8 00	
Amounts carried forward		$3,507 73	$8,000 00

Public Industries and Investments — Continued.

WATER WORKS, MAINTENANCE, STONY BROOK RESERVOIR—Concluded.

Amounts brought forward . .		$3,507 73	$8,000 00
For services of special police, Geo. Faber		19 25	
Storage of wagon, J. Cushing & Co.		7 50	
Teaming, sundry persons . . .		302 00	
Telephone service		78 10	
Timbers, Tracy Bros. . . .		6 00	
Transportation :—			
Boston & Maine R. R. . . .		77 70	
Water rates, City of Waltham . .		16 50	
Water used puddling trench :—			
Watertown Water Department .		10 50	
Total			4,025 28
Surplus of Appropriation			$3,974 72
Tranfer to Water Works, Maintenance Accounts .			3,750 00
Balance relinquished to General Treasury . . .			$224 72

SUPPLIES. (5.1)

Appropriation			$2,500 00
EXPENDED.			
For laborers, as per pay-rolls . .		$960 62	
Expressage, Dodge Express Co. .		4 45	
Pipe, fittings, etc. :—			
Chapman Valve Manufacturing Co.	$255 75		
Walworth Manufacturing Co. .	1,279 08		
		1,534 83	
Total			2,499 90
Surplus of Appropriation relinquished to General Treasury			10

ICE FOR FOUNTAINS. (5 1)

Appropriation			$500 00
EXPENDED.			
For ice : —			
Cambridge Ice Co.		$92 46	
Fresh Pond Ice Co.		195 90	
Independent Ice Co.		172 20	
Total			460 56
Surplus of Appropriation relinquished to General Treasury			$39 44

Public Industries and Investments — Concluded.

WATER WORKS, MAINTENANCE — Continued.

RATES, FINES, ABATEMENTS. (5.1)

Appropriation		$4,500 00
EXPENDED.		
For abatements allowed on water rates	$3,756 45	
Total		3,756 45
Surplus of Appropriation relinquished to General Treasury		$743 55

REFUNDS.

Appropriation		$3,500 00
EXPENDED.		
For refunds on water rates	$3,169 06	
Total		3,169 06
Surplus of Appropriation relinquished to General Treasury		$330 94

CAMBRIDGE WATER WORKS.

In account with the City of Cambridge for the year ending November 30, 1903.

RECEIPTS AND EXPENDITURES.

Balance to the credit of Construction Accounts, December 1, 1902	$11,025 61	Expended for: —	
Interest Account	3,160 00	Construction	$26,353 55
Receipts for the year: —		Maintenance	64,289 51
Construction	5,727 85	Interest	128,806 50
Maintenance	346,534 45	Sinking Fund	123,145 78
		Abatements	3,756 45
		Refunds	3,169 06
		Balance carried forward: —	
		Construction	12,647 06
		Interest	4,280 00
	$366,447 91		$366,447 91

6. PUBLIC EDUCATION.

PUBLIC PROPERTY.

SCHOOLHOUSES, SALARIES. (6.1)

Appropriation		$35,000 00
EXPENDED.		
For salaries of janitors and other employees	$34,999 25	
Total		34,999 25
Surplus of Appropriation		75
Transfer to Contingent Fund		75

GENERAL EXPENSES.

Appropriation	$29,000 00
Revenue appropriated	20,182 50
	$49,182 50

DEPARTMENT RECEIPTS. CARRIED TO CREDIT OF THE DEPARTMENT.

For Allston Schoolhouse	$5,010 00
Old material sold from Elm Street Lot	47 50
School desks and chairs	25 00
Washington Schoolhouse	15,100 00
	$20,182 50

EXPENDED.

For commissions on sales: —			
Cunningham Bros.		$227 10	
Expressage and moving furniture: —			
P. Biggin	$119 00		
Hazlett's Express	6 75		
J. R. Hersum & Co.	71 00		
F. D. Kenney	85 00		
Jeremiah Sullivan	14 00		
Sundry persons	5 79		
		301 54	
Fuel: —			
P. F. Gayton & Co.	$192 75		
Metropolitan Coal Co.	22,090 45		
Weighing	24 00		
		22,307 20	
Labor, as per pay-rolls		250 04	
Lighting, etc.: —			
Cambridge Electric Light Co.	$1,646 57		
Cambridge Gas Light Co.	715 50		
		2,362 07	
Printing, J Frank Facey		2 00	
Stock and labor, Water Works Dept.		5 66	
Amounts carried forward		$25,455 61	$49,182 50

Public Education — Continued.

PUBLIC PROPERTY, GENERAL EXPENSES — Continued.

Amounts brought forward . .		$25,455 61	$49,182 50
For use of horse and buggy :—			
Geo. E. Francis	$5 00		
T. W. Hillier & Co. . . .	101 00		
M. J. Murphy	6 00		
G. F. Whiting & Co. . . .	18 00		
		130 00	
Repairs and alterations :—			
Carpentry :—			
W. A. Briggs & Co. . . .	$293 92		
Chas. H. Callahan . .	556 87		
Arthur Cove	146 22		
D. K. Dinsmore	230 15		
Finlay & A McIsaac . . .	17 52		
I. W Gillespie	3 95		
Haley & Powers	229 13		
Frank L. Leydon . . .	539 82		
C. Mahoney	493 30		
R. F. McGrath	116 05		
W. H. Norris	132 44		
Thos. O'Neil	433 35		
F. Poitrast	174 02		
Thos. Powers	289 13		
John Quin & Son	549 99		
		4,205 86	
Cleaning boiler, S. Stockton . .		10 00	
Extra work on Russell School :—			
John McDonald & Son . .		480 30	
Half cost of fence, A. K. Jones .		10 95	
Heating and ventilating repairs : —			
Brock & Eaton	$29 80		
Wm. Campbell & Co. . . .	21 77		
Isaac Coffin & Co. . . .	70 00		
Wm. Fitzgerald	247 96		
A. B. Franklin	40 00		
Greene & Co.	13 16		
W Haley	4 25		
Higgins & Co.	267 84		
Lynch & Woodward . . .	200 00		
Henry McGahey	10 40		
Moynahan & Co	511 05		
Wm. H. O'Leary	347 06		
Pennell & Co.	10 90		
Roberts Iron Works Co. . .	84 96		
H. L. Rose	78 21		
H. J. Shaw	28 07		
D. J Wild & Co.	22 75		
Sundry persons	1 75		
		1,989 93	
Inspecting boilers, S. C. Baxter .		70 00	
Lettering and numbering : —			
David L. Mullen		30 60	
Amounts carried forward . . .		$32,383 25	$49,182 50

Public Education — Continued.

PUBLIC PROPERTY, GENERAL EXPENSES — Continued.

Amounts brought forward		$32,383 25	$49,182 50
For lighting appa atus and repairs, and electrical work: —			
Brock & Eaton	$14 95		
F. Bryant & Co.	96 61		
Thos. W. Byrne	40 00		
Thos. J. Daly	278 97		
Geo. F. Dickson	1 90		
Electrical Department, Wires	26 70		
B. E. McDermott & Co.	49 50		
Stuart-Howland Co.	30 83		
		539 46	
Mason work: —			
J. F. Brosnahan	$244 28		
John Delaney	711 85		
Thos. Leahy & Son	668 58		
Henry McGahey	411 00		
Frank J. O'Reilley	307 95		
Wm. J. Rounds	14 20		
		2,357 86	
Painting, whitening, glazing, etc.: —			
C. H. Callahan	$6 00		
Wm. C. Carroll	178 10		
Thos. Cummiskey	6 74		
Duffy Bros.	254 96		
Henry Haley	5 90		
Thos. D. Harris	40 00		
J. Leo McDonald	357 84		
Chas. E. McMenimen	235 83		
T. Murphy	13 70		
Sundry persons	1 65		
		1,100 72	
Plaster work: —			
Harrington & Howell	$250 90		
Wm. J. Heron	14 65		
J. S. Murray	155 92		
Patrick O'Hare	23 11		
Austin A. O'Toole	353 35		
		797 93	
Plumbing and sanitary repairs: —			
A Baumeister	$15 65		
E. W. Clark	8 25		
Chas. A. Fallon	294 35		
S. D. Fallon	366 95		
Greene & Co.	10 20		
Levi Hawkes	26 55		
D. J. Keefe & Co.	63 50		
John J. Long	88 03		
Martin & Reno	89 05		
Moynahan & Co.	315 03		
J. T. Phelan	191 73		
H. L. Rose	1,206 75		
Thos. C. Sweeney & Co.	6 05		
		2,682 09	
Pointing coal pocket flagging: —			
John S. Jacobs & Son Co.		36 85	
Amounts carried forward		$39,898 16	$49,182 50

Public Education — Continued.

PUBLIC PROPERTY, GENERAL EXPENSES — Continued.

Amounts brought forward		$39,898 16	$49,182 50
For removing windows: —			
Arthur Cove		4 50	
Repairing chimneys: —			
M. J. Sheehan		78 25	
Roof repairs: —			
J. J Blevins	$3 50		
C. Devine	212 53		
H. F. Peak	5 50		
M. J. Sheehan	773 39		
D. J. Wild & Co.	50 91		
		1,045 83	
Tearing down buildings: —			
Arthur Barry		108 50	
Supplies: —			
Clocks and repairs: —			
Blodgett Bros. & Co.	$3 56		
Harold Bradbury	50		
E. J. Dunphy	177 75		
Edw. Grant	10 50		
Jas. A. Rice	1 00		
		193 31	
Dusters, brooms, brushes, etc.: —			
Chas. A. Austin Brush Co.	$117 90		
P. J. Carmichael	18 84		
Continental Brush Co.	6 00		
D. J. Foley	7 50		
James F. Hayes	269 79		
G. H. Worcester & Co.	51 62		
		471 65	
Furniture, furnishings and repairs: —			
J. Abrahams	$2,445 37		
American Blackboard Co.	18 08		
E. T. Bynner	8 70		
Wm. C. Carroll	344 00		
Chandler Adjustable Chair & Desk Works	96 00		
W. R Cleary	294 66		
W. J. Coveney & Co.	1 00		
P. Derby & Co.	308 64		
Doten-Dunton Desk Co.	25 50		
French, Mitchell, Woodbury Co.	10 20		
James Grant	277 82		
S. H. Harrington	482 30		
Geo. H. Hogan	23 75		
Heywood Bros. & Wakefield Co.	128 10		
Frank L. Leydon	16 13		
John H. Pray, Sons & Co.	25 60		
Wm. A. Smith	89 20		
Worcester Bros.	26 10		
		4,621 15	
Gravel, Jeremiah Sullivan		8 10	
Amounts carried forward		$46,429 45	$49,182 50

Public Education — Continued.

PUBLIC PROPERTY, GENERAL EXPENSES — Concluded.

Amounts brought forward . .		$46,429 45	$49,182 50
For hardware, tools and repairs, and supplies:—			
Boston Engineers' Supply Co. .	$336 58		
Boston Woven Hose Co . .	2 00		
Brock & Eaton	21 39		
E. T. Bynner	57 95		
Cambridge Electric & Supply Co.	16 50		
P. J. Carmichael	80 58		
Dover Stamping Co. . . .	6 00		
Harrington & Howell . . .	39 75		
Geo. T. Johnson & Co. . .	6 50		
Edw. E. McDermott & Co. . .	7 40		
Chas. E. McPeck . . .	48 00		
J. F. Olsson & Co. . . .	5 48		
F. L. Sawtell	6 50		
L. A. Stingel	7 70		
Walworth Manufacturing Co. .	2 76		
A. J. Wilkinson & Co. . .	102 74		
Sundry persons	6 40		
		754 23	
Loam, Wm. P. Nickerson . .		137 47	
Lumber, Wm. H. Wood & Co. .		18 70	
Paint, varnish, etc.:—			
Chicago Varnish Co. . . .		22 65	
Sawdust, Geo. G. Page Box Co. .		25 25	
Soap and powder:—			
E P. Clarke	$12 00		
India Alkali Works . . .	11 35		
		23 35	
Sods at Willow Street School:—			
D. L. Thomas		10 00	
Total		$47,421 10	

SUMMARY—EXPENDED.

For commissions on sales . . .	$227 10	
Fuel	22,307 20	
Lighting	2,362 07	
Repairs	16,236 87	
Supplies	6,287 86	
Total		47,421 10
Surplus of Appropriation		$1,761 40
Transfer to Contingent Fund from this Department .		1,761 40

Public Education — Continued.

PUBLIC PROPERTY — Continued.

NEW SCHOOLHOUSE, ELM STREET.

Appropriation			$80,000 00
EXPENDED.			
For advertising: —			
Cambridge Democrat	$6 00		
Times Publishing Co.	5 00		
		$11 00	
Carpentry, Arther Cove		32 90	
Contract for building: —			
J. E. Locatelli & Co.		24,750 00	
Estimating on plans: —			
Henry McGahey		30 00	
Heating and ventilating: —			
Huey Bros.		3,195 00	
Plans, etc.: —			
George Huey	$149 50		
Harry Dustin Joll	1,563 68		
		1,713 18	
Plumbing, Huey Bros.		525 00	
Prizes for plans: —			
Chas. M. Cogswell	$100 00		
C. Herbert McClare	200 00		
Harry M. Ramsey	50 00		
		350 00	
Setting plans, John Quin		6 52	
Stationery and printing: —			
J Frank Facey	$12 75		
Chas. H. Thurston	5 00		
		17 75	
Supervision of school: —			
G. S. R. McLean		384 00	
Teaming lumber, Jeremiah Sullivan		10 00	
Total			31,025 35
Surplus of Appropriation relinquished to General Treasury			$48,974 65

NEW WASHINGTON SCHOOLHOUSE.

Appropriation		$23,555 96
EXPENDED.		
For contract: —		
Fessenden & Libby Co.	$19,137 41	
Total		19,137 41
Surplus of Appropriation relinquished to General Treasury		$4,418 55

Public Education — Continued.

PUBLIC PROPERTY — Concluded.

NEW SCHOOLHOUSE, WILLOW STREET. (6.1)

Appropriation			$60,965 14
EXPENDED.			
For contracts: —			
Thos. W. Byrne	$250 00		
Goodwin & Wester Co.	48,000 90		
Aaron H. Gould	1,469 67		
Lynch & Woodward	5,964 00		
Wm. N. McKenna	3,912 10		
		$59,596 67	
Insurance: —			
Cunningham Bros.	$170 00		
Obrion & Russell	200 00		
		370 00	
Manure, Alex. S. Ford		2 00	
Photographs: —			
DeBerge Chemical Co.		12 00	
Total			59,980 67
Surplus of Appropriation relinquished to General Treasury			$984 47

SCHOOL DEPARTMENT, CARE OF TRUANTS. (6.1)

Appropriation			$1,800 00
EXPENDED.			
For board: —			
Middlesex County Truant School		$1,765 97	
Car tickets: —			
Boston & Maine R. R.		20 25	
Total			1,786 22
Surplus of Appropriation			$13 78
Transfer to Contingent Fund			13 78

SCHOOL DEPARTMENT, FLAGS. (6.1)

Appropriation			$100 00
EXPENDED.			
For ensigns and halyards: —			
Henry A. Wheeler & Co.		$85 28	
Placing halyards, etc.: —			
J. Johansen		14 00	
Total			99 28
Surplus of Appropriation			72
Transfer to Contingent Fund			72

Public Education — Continued.

SCHOOL DEPARTMENT, INCIDENTAL EXPENSES. (6.1)

Appropriation		$1,500 00
EXPENDED.		
For salaries :—		
Secretary, S. B. Hubbard	$400 00	
Messengers :—		
Frank T. Evans	10 00	
Wm. E. McAnaul	15 00	
	425 00	
Advertising :—		
Cambridge Chronicle Co.	5 99	
Car tickets :—		
Boston Elevated Railway Co.	250 00	
Carting, Chickering & Sons	9 00	
Copying :—		
Florence P. Carter	$15 00	
Elizabeth McCrehan	15 00	
	30 00	
Directory, W. A. Greenough & Co.	3 50	
Expenses of theatre :—		
Harvard University	10 50	
Music, Oliver Ditson Co.	15 74	
Obtaining statistics, Lucian S. Cabot	6 00	
Postage, F. M. Small	43 00	
Services, A. K. Jones	3 00	
Stationery and printing :—		
Cambridge Chronicle Co.	$28 00	
J. A. Cummings Printing Co.	142 17	
J. Frank Facey	40 00	
G. B. Lenfest	7 50	
Louis F. Weston	68 75	
	286 42	
Taking census :—		
Walter K. Cabot	$10 00	
M. P. Carmichael	35 00	
Frank B. Ingalls	55 00	
Warren Ivers	127 50	
J. J. McCrehan	18 75	
Geo. H. Munroe	60 00	
Chas. F. Oxford	31 25	
	337 50	
Telephone service	178 28	
Total		1,603 93
Excess of Expenditures over Appropriation		$103 93
Transfer from Contingent Fund		103 93

Public Education — Continued.

SCHOOL DEPARTMENT, SALARIES. (6.1)

Appropriation $353,000 00

DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.

For education of children: —		
Hopkins Charity Fund . .	$669 10	
State Board of Charity . . .	1,025 50	
Tuition of non-residents . .	6,809 25	
	$8,503 85	

EXPENDED.

For salaries of: —			
Superintendent, Francis Cogswell .		$3,500 00	
Agent, S. B. Hubbard . . .		2,100 00	
Clerks: —			
Althea B. Frost	$750 00		
Myrta E. Smith	630 00		
Special instructors: —			
Botany, Sarah E Brassill . .	1,000 00		
Drawing: —			
Peter Roos	1,900 00		
Lucia N. Jennison . .	744 00		
Gymnastics: —			
Sarah E. Boudren . . .	900 00		
Bessie W. Howard . . .	715 00		
Music: —			
Frederick E. Chapman . .	2,000 00		
Georgia E. Martin . . .	800 00		
Sewing: —			
Agnes Gordon	700 00		
Alice H Nay	600 00		
Nancy T. Dawe	600 00		
Primary Supervisor, Mary A. Lewis	1,200 00		
		12,539 00	
Salaries of teachers in: —			
Latin School	$25,472 60		
English High School . . .	27,109 83		
Rindge Manual Training School .	21,125 50		
Grammar Schools	129 926 92		
Primary Schools	87,764 29		
Kindergarten Schools . . .	17,503 26		
Wellington Training School . .	15,429 50		
Substitutes	2,139 50		
		326,470 80	
Amounts carried forward . . .		$344,609 80	$353,000 00

Public Education — Continued.

SCHOOL DEPARTMENT, SALARIES — Concluded.

Amounts brought forward		$344,609 80	$353,000 00
For salaries of teachers in evening schools: —			
Drawing, free-hand	$476 00		
Drawing, mechanical	952 00		
High	1,683 00		
Allston	1,118 50		
Putnam	1,691 50		
Roberts	557 00		
Shepard	718 00		
Webster	915 50		
		8,111 50	
Salaries of truant officers		3,970 00	
Porter, John H. Lemon		600 00	
Total			357,291 30
Excess of Expenditures over Appropriation			$4,291 30
Transfer from Contingent Fund			4,291 30

SCHOOL DEPARTMENT, TEXT BOOKS AND SUPPLIES. (6.1)

Appropriation	$16,000 00

Department Receipts. Carried to General Treasury.

For sale of, and damage to, books	$517 44

EXPENDED.

For apparatus and supplies:—		
Adams, Cushing & Foster	$731 65	
Allen, Totman Co.	4 50	
American Cork Co.	1 35	
American File Co.	24 10	
Barbour-Stockwell Co.	29 89	
Billings & Stover	1 75	
Blodgett, Ordway & Webber	23 90	
Milton, Bradley Co.	55 00	
Brown, Durrell & Co.	87 35	
Brown-Wales Co.	99 35	
Burditt & Williams Co.	274 94	
Chandler & Barber	138 83	
Cook-Vivian Co.	3,550 97	
Davidson Rubber Co.	10 75	
Dexter Bros.	44 13	
Diamond Paste Co.	47 60	
Dodge, Haley & Co.	46 24	
Eimer & Amend	235 41	
Franklin Laboratory Supply Co.	14 62	
Frost & Adams Co.	213 70	
Gaylord Bros.	26 00	
Thos. Groom & Co.	4 50	
J. L. Hammett Co.	106 85	
Arthur C. Harvey Co.	54 74	
Amounts carried forward	$5,828 12	$16,000 00

Public Education — Continued.

SCHOOL DEPARTMENT, TEXT BOOKS AND SUPPLIES — Continued.

Amounts brought forward			$16,000 00
For J. A. Holmes & Co.	$4 00		
John A. Hubbard	14 48		
D. W. Hyde & Co.	2 95		
L. E. Knott Apparatus Co.	78 98		
G. G. Ledder	6 75		
Lord & Merrow	55 96		
Bunkio Matsuki	52 50		
Thedore Metcalf Co.	23 62		
Alexander Millan	5 15		
Neostyle Co.	2 50		
Norton Emery Wheel Co.	6 28		
Page Belting Co	56 58		
Emma A. Scudder	2 93		
B. F. Sturtevant Co.	80 87		
Thorp & Martin Co.	25 00		
Wadsworth, Howland & Co.	371 74		
		6,618 41	
Binding, Jas. M. Sullivan		387 69	
Books: —			
Allyn & Bacon	$131 47		
American Book Co.	1,403 02		
Edw. E. Babb & Co.	335 77		
Henry G. Carey	49 00		
T. H. Castor & Co.	138 44		
Cook-Vivian Co.	54 00		
De Wolfe, Fiske & Co.	135 71		
Ginn & Co.	1,156 24		
Gregg Publishing Co.	25 00		
Wm. H. Guild & Co.	18 05		
J. L. Hammett Co.	31 67		
Harvard Co-operative Society	5 25		
D. C. Heath & Co.	257 12		
Houghton, Mifflin & Co.	314 27		
Longmans Green & Co.	83 16		
Benj. H. Sanborn & Co.	8 00		
Silver, Burdett & Co.	228 11		
Thompson, Brown & Co.	1,091 29		
The Times	123 50		
University Publishing Co.	137 92		
Wm. Ware & Co.	127 85		
		5,854 84	
Car tickets: —			
Boston Elevated Railway Co.		25 00	
Cash expended for sundries: —			
S. B. Hubbard		3 89	
Diplomas, Boston Note Bank Co.		193 23	
Engine lathes: —			
Fitchburg Machine Works		1,412 00	
Amounts carried forward		$14,495, 06	$16,000 00

Public Education — Continued.

SCHOOL DEPARTMENT, TEXT BOOKS AND SUPPLIES — Concluded.

Amounts brought forward . .		$14,495 06	$16,000 00
For engrossing, Henry W. Stone . .		2 40	
Expressage: —			
Bancroft's Express . . .	$18 85		
H. W. Bettinson & Co. . . .	36 45		
P. Biggin	191 20		
W. A. Nichols	66 20		
Sawin's Express	50 30		
		363 00	
Fuel: —			
Coleman Bros. . . .	$24 25		
Metropolitan Coal Co. . . .	45 00		
		69 25	
Ice, Fresh Pond Ice Co. . . .		2 25	
Lumber, Geo. W. Gale Lumber Co. .		402 90	
Postage, F. M. Small . . .		188 40	
Printing: —			
J. Frank Facey	$59 00		
Latin & High School Review . .	19 00		
G. B. Lenfest	13 50		
T. W. Ripley Co.	6 50		
Louis F. Weston	21 50		
		119 50	
Rent of machines: —			
Singer Manufacturing Co. . .		10 00	
Repairing piano, Chickering & Sons		28 50	
Rodless cabinet: —			
Yawman & Erbe Manufacturing Co.		10 75	
Subscriptions, N. E. Publishing Co.		10 40	
Tuning pianos, Briggs & Briggs .		24 25	
Typewriters and repairs: —			
Duren & Kendall	$1 35		
Wyckoff, Seamans & Benedict .	70 00		
Yost Writing Machine Co. . .	68 50		
		139 85	
Washing, Catherine Flynn . .		18 35	
Total			15,884 86
Surplus of Appropriation			$115 14
Transfer to Contingent Fund . . .			115 14

Public Education — Continued.

SCHOOL DEPARTMENT, TRANSPORTATION OF PUPILS. (6.1)

Appropriation		$350 00
EXPENDED.		
For conveying children to school:—		
Timothy J. Shine	$309 00	
Total		309 00
Surplus of Appropriation		$41 00
Transfer to Contingent Fund		41 00

LIBRARIES. (6.2)

MAIN LIBRARY, SALARIES.

Appropriation			$9,500 00
EXPENDED.			
For salaries of:—			
Librarian, Wm. L. R. Gifford		$3,000 00	
Assistants:—			
Etta L. Russell	$797 95		
Winifred B. Smith	592 50		
Harriet D. Lochman	591 50		
Charlotte E. Stewart	600 00		
Haida N. Parker	397 36		
Effie L. Chapman	149 99		
L. Edna Brooks	408 30		
Ellen M. Hayes	233 31		
Katharine A. O'Donnell	66 66		
Alfred E. Thayer	499 93		
Sundry assistants	786 51		
		5,124 01	
Janitor, T. M. Thomas		1,193 22	
Total			9,317 23
Surplus of Appropriation			$182 77
Transfer to Public Library, General Expenses			150 00
			$32 77
Transfer to Contingent Fund			327 7

MAIN LIBRARY, GENERAL EXPENSES.

Appropriation			$8,500 00
DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.			
For dog licenses	$4,305 60		
Fines and catalogs	614 52		
	$4,920 12		
Amount carried forward			$8,500 00

Public Education — Continued.

LIBRARIES, MAIN LIBRARY, GENERAL EXPENSES — Continued.

Amount brought forward			$8,500 00
	EXPENDED.		
For Atlas, G. W. Bromley & Co.		$20 00	
Baskets, Hopkinson & Holden		7 50	
Binding and binders: —			
Boston Bookbinding Co.	$35 75		
David Farquhar	69 36		
J. H. H. McNamee Co.	821 10		
		926 21	
Books, periodicals, etc.: —			
Wm. Abbatt	$5 22		
A. L. A. Publishing Board	2 00		
Amee Bros.	646 79		
T. H. Castor & Co.	61 69		
Desmond Pub. Co.	25 20		
Oliver Ditson Co	12 39		
Dodd, Mead & Co.	32 00		
Essex Institute	4 00		
Essex Pub. Co.	6 00		
Federal Book Co.	14 00		
Funk & Wagnalls Co.	18 00		
Herman Goldberger	4 25		
E. B. Hall & Co	10 00		
H. S. Hutchinson & Co.	5 24		
H. S. Inman	5 00		
Chas. E. Lauriat Co.	14 94		
Little, Brown & Co.	3,278 05		
Geo. E. Littlefield	20 60		
Massachusetts Historical Society	6 00		
John D. Morris & Co.	15 00		
Moulton Publishing Co.	5 00		
National Educational Association	10 00		
Radcliffe Magazine	1 00		
Review Publishing Co.	2 00		
Chas. Scribner's Sons	4 50		
Frank E. Stevens	5 17		
Tennant & Ward	6 47		
The Macmillan Co.	5 00		
Times Publishing Co.	1 00		
H. W. Wilson Co.	8 00		
		4,234 51	
Book plates, Boston Bank Note Co.		7 00	
Catalog cards, Librarian of Congress		25 00	
Delivery of books, G. Davoren		265 50	
Directories: —			
W. A. Greenough & Co.	$10 50		
Sampson, Murdock & Co.	6 00		
		16 50	
Electrical work and supplies: —			
Bernstein Elec. Mfg. Co.	$9 45		
Clark & Mills Elec. Co.	70		
Electric Gas Light Co.	4 79		
		14 94	
Expressage, Sawin's Express		41 90	
Fuel, Metropolitan Coal Co.		564 91	
Amounts carried forward		$6,123 97	$8,500 00

Public Education — Continued.

LIBRARIES, MAIN LIBRARY, GENERAL EXPENSES — Continued.

Amounts brought forward		$6,123 97	$8,500 00
For furniture, furnishings and repairs :—			
Library Bureau	$37 70		
John T. Morris	2 60		
Thos. O'Callaghan & Co.	35 00		
Worcester Bros.	75		
		76 05	
Hardware, repairs and supplies :—			
Brock & Eaton	$58 82		
G. W. Burditt	33 60		
Vulite Syndicate	8 00		
A. J. Wilkinson & Co.	18 00		
Sundry persons	7 35		
		125 77	
House repairs : —			
Carpentry, F. B. Furbish	$9 93		
Inspection of boilers, S. C. Baxter	4 00		
Painting : —			
W. J. Edwards	1 13		
J. L. P. Ackers	24 20		
Plumbing, H. L. Rose	58 25		
Roof repairs : —			
John J. Blevins	4 25		
Wm. Gordon	18 64		
		120 40	
Ice, Fresh Pond Ice Co.		9 49	
Insurance, R. B. Walker		180 00	
Laundry work, T. M. Thomas		15 48	
Lighting : —			
Cambridge Electric Light Co.	$481 01		
Cambridge Gas Light Co.	311 90		
		792 91	
Local stations : —			
M. I. Dow	$32 00		
E. C. Gove	32 00		
J. W. Hunnewell	40 00		
C S. Lombard & Co.	24 00		
A. E. Lynch	24 00		
T. K. Martin	21 00		
W. H Murphy	24 00		
C. L. Nelson	24 00		
M. O'Donnell & Co.	24 00		
C. E. Phillips	24 00		
St. Paul's Social Settlement	24 00		
P. A. Yerxa	24 00		
		317 00	
Making gold plate for frame and engraving : —			
C. A. Twitchell & Co.		30 50	
Repairing steps, A. P. Greenleaf		20 00	
Signs, Cambridge Sign Co.		12 50	
Amounts carried forward		$7,824 07	$8,500 00

Public Education — Continued.

LIBRARIES, MAIN LIBRARY, GENERAL EXPENSES — Concluded.

Amounts brought forward . .		$7,824 07	$8,500 00
For stamps and repairs: —			
H. C. Dimond & Co. . . .		1 75	
Stationery, printing, etc.: —			
Amee Bros.	$26 25		
Carter, Rice & Co.	5 55		
Caustic Claflin Co	7 00		
J. A. Cummings Printing Co. .	16 82		
J Frank Facey	87 00		
Thos Groom & Co. . . .	2 90		
Hooper, Lewis & Co. . . .	46 05		
Monk, Bordley & Evans . . .	42 00		
The Co-operative Press . . .	311 00		
Edw. W. Wheeler	147 70		
Yawman & Erbe Manufacturing Co.	33 25		
		725 52	
Telephone service		64 00	
Towels, cheese cloth, etc.: —			
Parke Snow		7 30	
Typewriter repairs and supplies: —			
American Writing Machine Co. .	$7 55		
Hammond Typewriter Co. . .	17 83		
		25 38	
Total			8,648 02
Excess of Expenditures over Appropriation . .			$148 02
Transfer from Public Library, Salaries . . .			150 00
Transfer to Contingent Fund			$1 98

EAST CAMBRIDGE BRANCH. SALARIES.

Appropriation		$950 00
EXPENDED.		
For salaries of: —		
Librarian, Mary Curtis . . .	$124 99	
Substitute, Florence E. Parker . .	25 05	
Superintendent, J. J Henderson .	518 15	
Assistant, J. J. McCarthy . . .	182 50	
Total		850 69
Surplus of Appropriation		$99 31
Transfer to East Cambridge Branch, General Expenses		95 00
Transfer to Contingent Fund		$4 31

Public Education — Continued..

LIBRARIES — Continued.

EAST CAMBRIDGE BRANCH, GENERAL EXPENSES.

Appropriation			$450 00
	EXPENDED.		
For awnings, H. P. Halma & Co.		$10 00	
Binding and binders :—			
Boston Bookbinding Co.	$33 65		
J. H. H. McNamee Co.	183 05		
		216 70	
Books, periodicals, etc. : —			
Amee Bros.	$105 50		
Balch Bros Co	24 00		
T. H. Castor & Co.	5 48		
Desmond Publishing Co.	25 20		
Little, Brown & Co.	745 59		
Times Publishing Co.	1 00		
Underwood & Underwood	39 20		
		945 97	
Carpentry :—			
C. Mahoney	$86 90		
John Quin & Son	1 57		
		88 47	
Directory, W. A. Greenough & Co.		3 50	
Furniture and furnishings :—			
John Cashman	$58 75		
Library Bureau	68 00		
Worcester Bros.	1 10		
		127 85	
Hardware and supplies :—			
Amee Bros.	$2 00		
L. A. Stingel	35 73		
		37 73	
Lighting, Cambridge Gas Light Co.		62 10	
Printing : —			
J. Frank Facey	$1 00		
Edw. W. Wheeler	5 25		
		6 25	
Reseating chairs, A. H. Brown		3 50	
Stationery : —			
Amee Bros.	$2 90		
Hooper, Lewis & Co.	5 70		
Yawman & Erbe Mfg. Co.	13 00		
		21 60	
Stereographs, Byron C. Darling		18 90	
Teaming books, Peter P. Durnan		2 00	
Total			1,544 57
Excess of Expenditures over Appropriation			$1,094 57
Transfer from Contingent Fund			1,000 00
			$94 57
Transfer from East Cambridge Branch, Salaries			95 00
Transfer to Contingent Fund			43

Public Education — Concluded.

LIBRARIES — Concluded.

PUBLIC LIBRARY ADDITION

Appropriation			$1,359 38
	EXPENDED.		
For advertising: —			
Cambridge Chronicle Co.		$1 89	
Lighting apparatus and electrical supplies: —			
Cambridge Electric Light Co.	$64 00		
Clark & Mills Electric Co.	882 70		
McKenney & Waterbury	39 00		
		985 70	
Total			987 59
Surplus of Appropriation relinquished to General Treasury			$371 79

7. PUBLIC ART AND RECREATION.

PARK DEPARTMENT, CONSTRUCTION AND LANDS. (7.2)

Appropriation	$50,793 95
Additional appropriation	7,500 00
	$58,293 95

DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.

For rent	$2,101 66

EXPENDED.

For Broadway Park: —			
Expressage, Butland & Son		$ 35	
Filling, sundry persons		49 95	
Hardware, tools and supplies: —			
J. D. Jewett Co.		23 67	
Pay-rolls, laborers		196 33	
Seeds, etc., Jos. Breck & Sons		21 32	
Teaming, sundry persons		35 00	
Total expenses, Broadway Park			$326 62
Cambridge Field: —			
Advertising: —			
Cambridge Chronicle Co.		$2 47	
Pay-rolls, engineers		23 62	
Printing, Cambridge Chronicle Co.		50	
Specifications for alteration of shelter: —			
Andrews, Jacques & Rantoul		125 00	
Work on brick wall, H. L. Rose		100 97	
Total expenses, Cambridge Field			252 56
Fort Washington: —			
Filling, sundry persons		$223 02	
Hardware, tools and supplies: —			
J. D. Jewett Co.		18 39	
Lumber, E. D. Sawyer Lumber Co.		3 42	
Making cannon axles, W. H. Norris		10 60	
Pay-rolls: —			
Engineers	$25 87		
Laborers	496 20		
		522 07	
Pipe and labor: —			
Water Works Department		17 60	
Repairing fence: —			
Chelmsford Foundry Co.		108 00	
Amounts carried forward		$903 10	$579 18 $58,293 95

Public Art and Recreation — Continued.

PARK DEPARTMENT, CONSTRUCTION AND LANDS — Continued

Amounts brought forward . . .	$903 10	$579 18	$58,293 95
For teaming, sundry persons . .	26 69		
Total expenses, Fort Washington		929 79	
General Account: —			
Salaries of General Superintendent of Parks: —			
Jas. A. Montgomery . $802 42			
Jas. W. Pierce . . 239 89			
	1,042 31		
Bicycle repairs, E. H. McDuffee .	2 50		
Binding. J. H. H. McNamee Co.	1 00		
Carpentry, W. H. Norris	304 95		
Car tickets: —			
Boston Elevated Railway Co. .	175 00		
Electrical work, F. Bryant & Co. .	15 00		
Fuel, Metropolitan Coal Co. . .	6 75		
Hardware, tools and repairs, and supplies: —			
E. T. Bynner . . $20 11			
J. D. Jewett Co. . . 43 73			
James Maitland . . 7 80			
L. A. Stingel . . 9 00			
Sundry persons . . 3 90			
	84 54		
Harness repairs, Hugh McCaffrey .	5 80		
Hay, grain, straw, etc.: —			
Robert Fawcett . . $94 92			
W. F. Holmes . . 36 28			
	131 20		
Heating apparatus repairs: —			
Greene & Co.	2 70		
Horse, F. J Smith	125 00		
Horse board, Whiting & Prescott .	45 75		
Horse clipping, Ferris & Co. . .	3 00		
Horseshoeing: —			
Martin D. Coyne's Shoeing Forge . . $17 50			
W. F. Garrett . . 19 75			
Thos. Smith & Sons . 2 00			
	39 25		
Nutriotone, F. P. Merrill Co. . .	7 00		
Paint for watering cart: —			
Street Department . . .	6 00		
Pay-rolls: —			
Engineers . . . $360 00			
Laborers . . . 57 35			
	417 35		
Amounts carried forward . . .	$2,415 10	$1,508 97	$58,293 95

Public Art and Recreation — Continued.

PARK DEPARTMENT, CONSTRUCTION AND LANDS — Continued.

Amounts brought forward . .	$2,415 10	$1,508 97	$58,293 95
For rent, Prospect Union Association .	40 00		
Seeds, etc., Jos. Breck & Sons .	21 32		
Stationery, printing, etc.: —			
Camb. Chronicle Co. . $9 75			
J. A. Cummings Pt'g Co. 107 27			
Dennison Mfg. Co. . 4 00			
J. Frank Facey . . 8 00			
	129 02		
Sundries	85		
Use of water: —			
Water Works Department . .	11 50		
Views and maps: —			
Heliotype Printing Co. . .	87 50		
Total expenses, General Account		2,705 29	
The Nursery: —			
Fuel, Metropolitan Coal Co. . .	$2 13		
Pay-rolls, laborers	616 00		
Total expenses, The Nursery .		618 13	
The Office: —			
Salary of clerk, Grace E. Hixon .	$780 00		
Boxes, W. H. Norris . . .	3 00		
Directory, W. A. Greenough & Co.	3 50		
Repairing desk, Derby Desk Co. .	2 10		
Stamps: —			
H. C. Dimond & Co. . $2 75			
Pneumatic Hand Stamp Co. 1 30			
	4 05		
Stationery, printing, etc.: —			
F. W. Barry, Beale & Co. $1 38			
Camb. Chronicle Co. . 76 25			
City Messenger Dept. . 58 23			
Cotton & Gould . . 27 90			
J. Frank Facey . . 10 50			
	174 26		
Sundries	2 45		
Telephone service	115 28		
Total expenses, The Office .		1,084 64	
Rindge Field: —			
Advertising and printing: —			
Cambridge Chronicle Co. . .	$2 97		
Amounts carried forward . . .	$2 97	$5,917 03	$58,293 95

Public Art and Recreation — Continued.

PARK DEPARTMENT, CONSTRUCTION AND LANDS — Continued.

Amounts brought forward . .	$2 97	$5,917 03	$58,293 95
For pay rolls:—			
Engineers . . . $7 88			
Laborers . . . 915 65			
	923 53		
Self-closing faucet, E. T. Bynner .	1 50		
Total expenses, Rindge Field .		928 00	
River Parkway, Section A:—			
Execution of Court:—			
Geo. M. Smith, et al . . .	$7,500 00		
Pay-rolls, engineers . . .	25 88		
Total expenses, Section A .		7,525 88	
River Parkway, Section B:—			
Expressage	$1 50		
Hardware, tools and supplies:—			
E. T. Bynner . . $9 87			
J. D. Jewett Co. . . 36 20			
	46 07		
Hose, etc.:—			
Boston Woven Hose Co. . .	8 63		
Labor and teaming:—			
Water Works Department . .	3 75		
Painting iron fence:—			
Jos. A. Reid	220 00		
Pay-rolls:—			
Engineers . . . $2 63			
Laborers . . . 2,173 30			
	2,175 93		
Putting ladders on sea-wall, etc.:—			
James Maitland	8 25		
Stone, Sweatt & Gould . . .	51 98		
Use of man and horses on watering cart:—			
Jas. P. Davoren	462 05		
Total expenses, Section B .		2,978 16	
River Parkway, Section C:—			
Filling, sundry persons . .	971 59		
Gravel, Wm. B. Mullen . . .	18,007 26		
Hardware, repairs, etc.:—			
E T. Bynner . . $2 87			
Sundry persons . . 3 25			
	6 12		
Amounts carried forward . .	$18,984 97	$17,349 07	$58,293 95

Public Art and Recreation — Continued.

PARK DEPARTMENT, CONSTRUCTION AND LANDS — Continued.

Amounts brought forward . .	$18,984 97	$17,349 07	$58,293 95
For pay-rolls :—			
Engineers . . . $897 90			
Laborers . . . 407 95			
	1,305 85		
Placing new locks on gates :—			
G. A. Walker Machine Co. .	10 51		
Services in Norcross case :—			
Robert M. Morse . . .	3,000 00		
Stakes, John Quin & Son . .	32 75		
Total expenses, Section C .		23,334 08	
River Parkway, Section D :—			
Hardware, etc., E. T. Bynner .	$1 97		
O. and O., Water Works Dept. .	1 00		
Pay-rolls :—			
Engineers . . . $275 25			
Laborers . . . 1,651 66			
	1,926 91		
Total expenses, Section D .		1,929 88	
River Parkway, Section E :—			
Pay-rolls, engineers . . .	$5 25		
Total expenses, Section E .		5 25	
River Parkway, Section F :—			
Advertising :—			
Cambridge Chronicle Co. . .	$2 93		
Filling, sundry persons . . .	744 49		
Land and damage :—			
Dennis J. O'Brien . . .	1,058 57		
Pay-rolls :—			
Engineers . . . $253 12			
Laborers . . . 2,012 57			
	2,265 69		
Recording deeds	69		
Removing and depositing stones, etc :—			
Eastern Dredging Co. . .	1,002 04		
Repairing tools, James Maitland .	14 30		
Shingling Weld Boathouse :—			
John C. McGirr	790 00		
Teaming, sundry persons . .	409 77		
Total expenses, Section F .		6,288 48	
Amounts carried forward . . .		$48,906 76	$58,293 95

Public Art and Recreation — Continued.

PARK DEPARTMENT, CONSTRUCTION AND LANDS — Concluded.

Amounts brought forward . .		$48,906 76	$58,293 95
For River Parkway, Section G: —			
Filling, sundry persons . . .	$98 00		
Pay-rolls, laborers	43 20		
Total expenses, Section G .		141 20	
Total		$49,047 96	

SUMMARY — EXPENDED.

For Broadway Park	$326 62	
Cambridge Field	252 56	
Fort Washington	929 79	
General Account	2,705 29	
The Nursery	618 13	
The Office	1,084 64	
Rindge Field	928 00	
River Parkway, Section A . . .	7,525 88	
" " " B .	2,978 16	
" " " C . . .	23,334 08	
" " " D . . .	1,929 88	
" " " E . . .	5 25	
" " " F . . .	6,288 48	
" " " G . . .	141 20	
Total		49,047 96
Surplus of Appropriation relinquished to General Treasury		$9,245 99

BATHS AND LOCKERS. (7.3)

Appropriation		$2,500 00

EXPENDED.

For brick wall, H. L. Rose . . .	$64 66	
Changing service: —		
Cambridge Electric Light Co. .	27 54	
Installing baths, H. L. Rose . .	2,399 80	
Laborers, as per pay-rolls . . .	8 00	
Total		2,500 00

IMPROVEMENTS AT RINDGE FIELD. (7.2)

Appropriation		$3,000 00

EXPENDED.

For advertising: —		
Cambridge Chronicle Co. . .	$2 32	
Apparatus, Caroline E. B. Hall . .	65 00	
Amounts carried forward . . .	$67 32	$3,000 00

Public Art and Recreation — Continued.

PARK DEPARTMENT, IMPROVEMENTS AT RINDGE FIELD — Concluded.

Amounts brought forward . .		$67 32	$3,000 00
For hardware, tools and supplies :—			
E. T. Bynner	$ 32		
L. A. Stingel	40 50		
		40 82	
Pay-rolls :—			
Engineers	$61 74		
Laborers	2,829 21		
		2,890 95	
Total			2,999 09
Surplus of Appropriation . . .			91
Transfer to Contingent Fund . .			91

PARK DEPARTMENT, MAINTENANCE.

BATH HOUSE. (7.3)

	Department Receipts.	Carried to General Treasury.
For use of suits, towels, etc. . .	$1,134 71	
Appropriation		$2,200 00

EXPENDED.

For employees : —			
Bath house keepers : —			
Jos. A. Heffernan . . .	$164 57		
John Keane	164 57		
Jos. James	176 57		
Laundress, Catherine Freeman .	72 00		
Life guards : —			
John J. Lynch	176 57		
Chas. J. Martell	164 57		
Matrons : —			
Jennie Craig	137 14		
Mary Campbell	54 29		
Nellie E. Sullivan . . .	92 86		
Police officers : —			
Thos. F. Burke	397 20		
John P. Conroy	2 70		
Laborers, as per pay rolls . .	88 92		
		$1,691 96	
Carpentry, Arthur Cove . . .		69 30	
Hardware, tools and repairs, and supplies :—			
E. T. Bynner	$11 06		
Pill Bros.	33 71		
Sundry persons	10 61		
		55 38	
Amounts carried forward . . .		$1,816 64	$2,200 00

Public Art and Recreation — Continued.

PARK DEPARTMENT, MAINTENANCE, BATH HOUSE — Concluded.

Amounts brought forward		$1,816 64	$2,200 00
For laundry work :—			
Cambridge Laundry Co.		80 47	
Lighting : —			
Cambridge Electric Light Co.		185 79	
Lumber, Wm. H. Wood & Co.		23 34	
Medical supplies, J. H. Fitzgerald		6 58	
Printing :—			
Cambridge Chronicle Co.	$7 00		
J. Frank Facey	19 05		
		26 05	
Stakes, John Quin & Son		11 60	
Telephone service		6 18	
Towels and supplies :—			
J. H. Corcoran & Co.	$9 46		
Farley, Harvey & Co.	17 64		
D. W. Hyde & Co.	1 38		
		28 48	
Wringer, Prescott & Co.		8 82	
Total			2,193 95
Surplus of Appropriation			$6 05
Transfer to Contingent Fund			6 05

BROWN TAIL MOTH EXTERMINATION. (7.2)

Appropriation	$3,500 00
Revenue appropriated	250 03
	$3,750 03

DEPARTMENT RECEIPTS. CARRIED TO CREDIT OF THE DEPARTMENT.

For labor, etc.	$250 03

EXPENDED.

For carpentry, W. H Norris		$4 60	
Creosote, Samuel Cabot		3 75	
Expressage.		1 80	
Hardware, tools and supplies : --			
Jos. Breck & Sons	$25 86		
E. T. Bynner	3 52		
F. A. White	2 78		
		32 16	
Ladders and repairs : —			
C. W. H. Moulton & Co.		43 50	
Pay-rolls, laborers		3,443 72	
Printing. Chambridge Chronicle Co.		32 25	
Amounts carried forward		$3,561 78	$3,750 03

Public Art and Recreation — Continued.

PARK DEPARTMENT, MAINTENANCE, BROWN TAIL MOTH EXTERMINATION — Concluded.

Amounts brought forward		$3,561 78	$3,750 03
For pruning and use of tools: —			
H. L. Frost & Co.		32 72	
Teaming		43 88	
Wagon repairs: —			
Chas. Waugh & Co.		75	
Total			3,639 13
Surplus of Appropriation			$110 90
Transfer to Contingent Fund			110 90

COMMONS, SQUARES AND PUBLIC GROUNDS. (7.2)

Appropriation			$5,000 00
	EXPENDED.		
For bulbs, Schlegel & Fottler Co.		$53 85	
Carpentry, W. H. Norris		15 15	
Expressage		4 40	
Filling, sundry persons		10 94	
Fuel, Metropolitan Coal Co.		14 24	
Hardware, tools and repairs, and supplies: —			
Jos. Breck & Sons	$19 76		
E. T. Bynner	17 13		
James Maitland	1 50		
		38 39	
Housing topmasts, M. J. Connelly		11 33	
Lighting: —			
Cambridge Electric Light Co.		360 00	
Lumber: —			
John S. Clary Lumber Co.		15 51	
Painting and repairing fences: —			
Jos. A. Reid		275 87	
Pay-rolls, laborers		3,936 00	
Plants, P. O'Brien & Son		75 00	
Printing, J. Frank Facey		2 00	
Repairing barrels, Benj. F. Proctor		3 48	
Repairing flags, Mrs. Ellen Reardon		5 80	
Repairing topmasts: —			
Boston Flag Pole Co.		73 00	
Rope, M. J. Connelly		9 00	
Stakes, John Quin & Son		22 50	
Amounts carried forward		$4,926 46	$5,000 00

Public Art and Recreation — Continued.

PARK DEPARTMENT, MAINTENANCE, COMMONS, SQUARES AND PUBLIC GROUNDS — Concluded.

Amounts brought forward	$4,926 46	$5,000 00
For stone, John O'Brien	7 45	
Teaming, sundry persons	63 25	
Total		4,997 16
Surplus of Appropriation		$2 84
Transfer to Contingent Fund		2 84

CAMBRIDGE FIELD AND SHELTER. (7.2)

Appropriation			$1,500 00
EXPENDED.			
For salaries of :—			
Superintendent, John Good	$848 57		
Janitor, Edw. Flynn	114 00		
Matron, Mrs. Reardon	471 43		
		$1,434 00	
Cleaning out and resetting boxes :—			
Water Works Department		2 50	
Expressage		75	
Hardware, tools and supplies :—			
E. T. Bynner	$5 60		
Wm. H. Claflin & Co.	18 00		
J. A. Holmes & Co.	2 03		
Pill Bros.	4 50		
		30 13	
Heating apparatus repairs :—			
Greene & Co.		4 30	
Laundering towels, E. and R. Laundry		8 56	
Lighting :—			
Cambridge Electric Light Co.		754 70	
Pay-rolls, laborers		2,218 84	
Placing halyards :—			
Boston Flag Pole Co.		10 00	
Plumbing, Levi Hawkes		1 30	
Repairing clock, Miller Bros.		3 00	
Teaming, sundry persons		7 81	
Telephone service		23 90	
Total			4,499 79
Surplus of Appropriation			21
Transfer to Contingent Fund			21

Public Art and Recreation— Continued.

PARK DEPARTMENT, MAINTENANCE — Continued.

GENERAL ACCOUNT. (7.2)

Appropriation	$550 00

DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.

For labor	$22 99	
Old iron	28 32	
Old materials	7 45	
Old wire	1 00	
Telephone	70	
	$60 46	

EXPENDED.

For bicycle repairs: —		
E. H. McDuffie	$2 75	
J. L. Moseley	1 75	
		$4 50
Hardware, tools and supplies: —		
E. T. Bynner	$29 61	
Durnin, McLaughin & Co	3 92	
Greene & Co.	6 00	
L. A. Stingel	7 10	
Sundry persons	3 55	
		50 18
Harness repairs: —		
Hugh McCaffrey		19 30
Hay, grain, etc.: —		
J. Cushing & Co	$13 20	
Robert Fawcett	76 88	
W. F. Holmes	16 90	
E R. Luke & Co	20 00	
		126 98
Horse board, Street Deptartment		45 00
Horseshoeing: —		
Martin D Coyne's Shoeing Forge	$3 00	
Street Department	13 50	
		16 50
Lumber, Wm. H. Wood & Co.		24 38
Pay-rolls: —		
Engineers	$16 50	
Laborers	17 69	
		34 19
Posting rules, J. Frank Facey		6 80
Rent of stable, Minnie G. del Castillo		180 00
Wagon repairs, Street Department		40 30
Total		548 13
Surplus of Appropriation		$1 87
Transfer to Contingent Fund		1 87

Public Art and Recreation — Continued.

PARK DEPARTMENT, MAINTENANCE — Continued.

RIVER PARKWAY, SECTIONS A, B, D, F AND RINDGE FIELD. (7.2)

Appropriation			$2,500 00
EXPENDED.			
For Section A :—			
Lighting :—			
Welsbach Street Lighting Co.		$231 76	
Section B :—			
Lighting :—			
Welsbach Street Lighting Co.		848 50	
Section D :—			
Lighting :—			
Welsbach Street Lighting Co.		720 14	
Section F :—			
Lighting :—			
Welsbach Street Lighting Co.		345 03	
Rindge Field :—			
Fuel, Metropolitan Coal Co.	$6 75		
Lighting :—			
Cambridge Electric Light Co.	200 04		
Welsbach Street Lighting Co.	63 08		
Pay-rolls, laborers	564 03		
		833 90	
Total			2,979 33
Excess of Expenditures over Appropriation			$479 33
Transfer from Contingent Fund			500 00
Transfer to Contingent Fund			$20 67

RIVER PARKWAY, SECTION G AND H. (7.2)

Appropriation			$3,300 00
EXPENDED.			
For Section G :—			
Hardware, etc., L. A. Stingel		$58 91	
Lighting :—			
Welsbach Street Lighting Co.		836 26	
Pay-rolls :—			
Engineers	$9 00		
Laborers	2,342 67		
		2,351 67	
Stakes, John Quin & Son		34 00	
Total			3,280 84
Surplus of Appropriation			$19 16
Transfer to Contingent Fund			19 16

Public Art and Recreation — Concluded.

PARK DEPARTMENT, MAINTENANCE — Concluded.

SHADE TREES. (7.2)

Appropriation		$5,000 00
EXPENDED.		
For expressage	$ 90	
Hardware, tools and repairs, and supplies: —		
Jos. Breck & Sons	$1 65	
E. T. Bynner	15 58	
J. A. Holmes & Co.	1 30	
Daniel J. Sullivan	21 60	
	40 13	
Lumber, Wm. H. Wood & Co.	25 35	
Pay-rolls, laborers	4,588 43	
Rent of stable, Minnie G. del Castillo	253 50	
Stable supplies, Hugh McCaffrey	5 25	
Teaming, sundry persons	36 25	
Total		4,949 81
Surplus of Appropriation		$50 19
Transfer to Contingent Fund		50 19

9. PUBLIC INTEREST.

Appropriation	$230,000 00

DEPARTMENT RECEIPTS. CARRIED TO GENERAL TREASURY.

For accrued interest (9.4) . . .	$227 39	
Interest on betterments . . .	98 39	
" " deposits (9.1) . .	3,222 07	
" " sewer assessments (9.2)	15 36	
" " sidewalk " (9.2)	97 40	
" " taxes (9.2) . . .	8,461 41	
	$12,122 02	

EXPENDED.

For Daniel White Charity (9.4) .	$300 00	
Dowse Institute Fund (9.4) . .	600 00	
Funded loan (9.3)	166,166 50	
" " (Parks) (9.3) . .	50,535 00	
Sanders Temperance Fund (9.4) .	600 00	
Temporary loans (9.3) . . .	9,388 13	
Total		227,589 63
Surplus of Appropriation		$2,410 37
Transfer to Contingent Fund		2,410 37

12. UNCLASSIFIED.

CONTINGENT FUND.

Appropriation (12.1)	$20,000 00
Revenue appropriated	6,338 42
	$26,338 42

DEPARTMENT RECEIPTS. CARRIED TO CREDIT OF THE DEPARTMENT.

For hawkers and pedlers' licenses (10.6)	$200 00
Liquor licenses (10.5)	61 00
Land on Second Street sold to Independent Ice Co. (12.1)	6,000 00
Old taxes (1894, 1895 and 1896 Polls) (10 9)	20 00
Paige's History (1.7)	15 00
Proprietors' Records (1.7)	10 00
Town Records (1.7)	3 00
Sale of fuel (12.1)	29 42
	$6,338 42

EXPENDED.

For City Council expenses:— (1.2)		
Salaries:—		
Clerk of Common Council:—		
Edw. A. Counihan	$500 00	
Page to Common Council:—		
Wm. E. McAnaul	100 00	
		$600 00
Advertising:—		
Cambridge Chronicle Co.	$8 42	
Cambridge Democrat	7 50	
Press Newspaper Co.	4 50	
Times Publishing Co.	7 50	
		27 92
Car fares:—		
Boston Elev. Railway Co.	$300 00	
Frank T. Evans	17 39	
		317 39
Carriage hire:—		
J. J. Callahan	$65 00	
Cambridge Coach Co.	27 00	
J. J. Corkery	38 00	
Chas. W. Dailey	31 00	
J. J. Donahue	16 00	
Geo. E Francis	77 00	
J. R Kenney	8 00	
F. D. Norton	7 00	
H. K. Parsons & Co.	4 00	
D. Reardon	93 00	
Whiting & Prescott	29 00	
G. W. Worster	6 00	
		401 00
Amounts carried forward		$1,346 31 $26,338 42

Unclassified — Continued.

CONTINGENT FUND — Continued.

Amounts brought forward . .	$1,346 31		$26,338 42
For engrossing resolutions :—			
Frank L. Wells	55 00		
Examination of accounts :—			
Harvey S. Chase . $1,000 00			
Harry T. Upham . . 27 00			
	1,027 00		
Flowers and use of plants :—			
Wm. E. Doyle . . $44 00			
P. O'Brien & Son . . 30 00			
	74 00		
Printing, stationery, etc. :—			
West Publishing Co. . $49 00			
Cambridge Chronicle Co. 224 68			
Cotton & Gould . . 7 87			
City Messenger Dept. . 20 30			
J. A. Cummings Ptg. Co. 1,594 75			
Co-operative Press Co. . 110 00			
H. C. Dimond & Co. . 50			
J. Frank Facey . . 179 15			
J. H. H. McNamee Co. . 139 70			
	2,325 95		
Refreshments :—			
M. R. Jones . . . $243 50			
Mansion House . . 152 35			
A. V. Millett . . . 37 00			
A. L Noyes . . . 19 00			
Revere House . . . 14 20			
Riverbank Court . . 91 50			
	557 55		
		$5,385 81	
Damages awarded and suits settled :—	(4.13)		
James M. Barton . . $22 35			
Wm. J. Callahan . . 70 00			
Conant & Stockwell . 20 00			
Jeremiah Corkery . . 100 00			
John B. Cornish, Agent . 315 00			
Gilbert Davoren . . 500 00			
Daniel D. Delaney . . 10 00			
Mary Donnelly . . 35 00			
Geo. E. Francis . . 25 00			
Edw. J. Fudge . . 83 00			
Lena G. Kelley . . 1,750 00			
Mary Manganaro, Gdn. . 500 00			
John Reardon & Sons . 34 50			
Mabel M. Robbins . . 5 00			
Regina Sullivan . . 30 00			
	$3,499 85		
OTHER EXPENSES.			
Professional services in Mrs. Kelley's case :—			
F. I. Proctor, M. D. . $75 00			
G. L. Walton, M. D. . 50 00			
Amounts carried forward . . .	$3,499 85	$5,385 81	$26,338 42

Unclassified — Continued.

CONTINGENT FUND — Continued.

Amounts brought forward . .	$3,499 85	$5,385 81	$26,338 42
For making appraisal: —			
E. W. Boynton . . 10 00			
Searching records: —			
Wm. V. Thompson . 3 00			
	138 00		
		3,637 85	
Car tickets for military companies: — (2.7)			
Boston Elevated Railway Co. .	$88 75		
Boston & Maine Railway Co. . .	95 11		
Lexington & Boston St. Railway Co.	115 00		
		298 86	
Expenses of placing statue of Charles Sumner: — (7 5)			
Cement, D W. Lewis . . .	$24 40		
Labor as per pay-roll . . .	41 29		
Loam, Jeremiah Sullivan . .	122 35		
Sand, gravel and teaming . .	8 05		
Setting statue: —			
Alex. McDonald & Son . .	115 00		
		311 09	
Expense of Gray hearing: — (1.7)			
Expert witnesses: —			
Isaac Coffin & Co. . $10 00			
Connery & Wentworth 25 00			
Arthur G. Everett . 100 00			
Henry McGahey . . 125 00			
Wilfred A. Norris . 175 00			
Thomas F. Tracy . 200 00			
	$635 00		
Legal services, Francis P. Curran .	1,500 00		
Reinbursement of expenses: —			
Wm. H. Gray	1,835 00		
		3,970 00	
Expense of setting urn at Webster schoolhouse (7.5) . . .		30 00	
Expense of Fourth of July Celebration: — (7.4)			
Badges	$9 00		
Base balls	11 25		
Carriage hire	12 00		
Erecting stands	38 30		
Fireworks	650 00		
Games	190 00		
Labor	19 33		
Lighting	44 00		
Music	200 00		
Prizes	104 00		
Printing	29 73		
Refreshments	45 48		
Ringing bells	39 00		
Amounts carried forward . . .	$1,392 09	$13,633 61	$26,338 42

Unclassified — Concluded.

CONTINGENT FUND — Concluded.

Amounts brought forward . .	$1,392 09	$13,633 61	$26,338 42
For Sanction for games . . .	10 00		
Services of official handicapper .	17 00		
Service of referees	7 50		
Sundry supplies	17 10		
Teaming	3 00		
Use of rope	15 00		
Use of chairs	3 75		
		1,465 44	
Expense of Labor Day Celebration :— (7.4)			
Badges, banners, etc. . . .	$104 50		
Barges	12 00		
Carpentry	28 50		
Hats	15 00		
Music	240 00		
		400 00	
Expense of Memorial Day Celebration :— (7.4)			
Chas. Beck Post, No. 56 . .	$250 00		
P. Stearn Davis Post, No 57 . .	250 00		
John A. Logan Post, No. 186 . .	250 00		
Wm. H. Smart Post, No. 30 . .	250 00		
Leslie F. Hunting Camp, No. 12 .	100 00		
		1,100 00	
Liquor Licenses, Commonwealth of Massachusetts (10.5) . . .		15 25	
Notifying Voters :— (1.5)			
Clerical service	$14 62		
Postage	27 25		
		41 87	
Ringing bells on holidays (7.4) . .		39 00	
Sinking Funds :— (1.4)			
Salaries of :—			
Treasurer, Wm. W. Dallinger .	$300 00		
Secretary, John McDuffie . .	25 00		
Rent of Boxes :—			
Cambridge Trust Co. . . .	40 00		
Boston Safe Deposit Co. . .	40 00		
		405 00	
Total			17,100 17
			$9,238 25
Transfers to this Fund from sundry Departments .			10,615 60
			$19,853 85
Transfers from this Fund to sundry Departments .			19,523 57
Balance relinquished to General Treasury . . .			$330 28

SCHEDULE B–I.

Consolidated Balance Sheet. November 30, 1903.

ASSETS.		LIABILITIES.	
Current Assets (B–II.)	$519,809 54	Current Liabilities (B–II.)	$94,464 97
Contingent Assets (B–III.)	276,456 56	Contingent Liabilities (B–III.)	241,435 67
Trust Funds and Special Deposits (B–IV.)	85,818 20	Trust Liabilities (B–IV.)	85,818 20
Sinking Funds (B–V.)	2,371,799 95	Bonded Debt (B–V.)	8,840,500 00
Total Available Assets	$3,253,884 25	Total Liabilities	$9,262,218 84
Fixed Assets (Unavailable. B–VI.)	11,151,847 08	General Deficit and Surplus Account (B–VII.)	5,143,512 49
Grand Total of Assets	$14,405,731 33	Grand total of Liabilities and Surplus	$14,405,731 33

SCHEDULE B–II.

CURRENT ASSETS.

CASH:		
Cash in the Treasury available for general purposes		*$67,128 97
Cash in the Treasury available for special asessments (*included above.*)		
GOOD ACCOUNTS RECEIVABLE:		
Delinquent Property Taxes	$425,000 00	
Other good accounts:		
Betterments	2,000 00	
Sewer Assessments	392 54	
Sidewalk Assessments	7,534 42	
Street Watering Assessments	4,543 45	
Miscellaneous Bills	13,210 16	
Total Good Accounts Receivable		452,680 57
Total Current Assets		$519,809 54

CURRENT LIABILITIES.

(Floating Debts.)

1. OUTSTANDING ACCOUNTS DUE AND UNPAID:		
Of the current year		
Land Damages	$11,538 45	
Expenses of Legislative Committee on Charles River Dam	27,789 42	
School Expenses	3,675 33	
Of previous years		
Tax Sale Surplus	461 07	
2. OUTSTANDING ACCOUNTS NOT DUE:		
Temporary Tax Loans Unpaid	51,000 00	
Other Accounts	†	
Total Current Liabilities		94,464 97
Surplus of Current Assets (B–VII.)		$425,344 57

*The Treasurer's actual cash is $25,000 greater, as it includes $25,000 which has here been treated as cash in three trust funds. (See Schedule B–IV.) The actual cash balance of $92,128.97 has been shown on Schedule A–I. distributed to various funds and accounts.

† Not determined for this year.

SCHEDULE B–III.

CONTINGENT ASSETS.

DOUBTFUL ACCOUNTS RECEIVABLE:

Delinquent Personal Property and Poll Taxes, viz.:

1897	$26,918 17	
1898	27,229 08	
1899	22,324 78	
1900	24,592 92	
1901	23,812 52	
1902	25,182 77	
1903	27,000 00	
		$177,060 24

Other doubtful acconuts, viz.:

Park Bettetments	$69,416 93	
Park Betterment Liens	14,117 69	
Tax Liens	15,861 70	
		99,396 32
Total Contingent Assets		$276,456 56

CONTINGENT LIABILITIES.

RETENTION FUND ACCOUNT:

Percentage of contractors' payments retained, viz.:

Bay State Dredging Company	$1,540 00	
Thomas W. Byrne	84 00	
Holbrook, Cabot & Rollins	3,292 03	
Huey Bros.	1,699 69	
J. E. Locatelli & Co.	9,000 50	
Wm. B. Mullen	735 15	

OTHER CONTINGENT LIABILITIES VIZ.:

Note — Water Works.	200,000 00	
Lynch & Woodward (in dispute)	5,084 30	
John F. O'Brien	20,000 00	
Total Contingent Liabilities		241,435 67
Surplus of Contingent Assets (B–VII.)		$35,020 89

SCHEDULE B–IV.

TRUST FUNDS ASSETS.

CASH IN TRUST FUNDS:		
Firemen's Pension Fund.....		
Police Pension Fund.....		
Special Deposits, etc., viz:		
Cemetery Fund.....	$3,418 20	
Daniel White Charity Fund.....	*5,000 00	
Dowse Institute Fund.....	*10,000 00	
Sanders Temperance Fund.....	*10,000 00	
Total Cash in Trust Funds.....		$28,418 20
INVESTMENTS OF TRUST FUNDS:		
Stocks and Bonds in Various Funds, viz.:		
Cemetery Fund.....	$57,400 00	
Total Investments in Trust Funds		$57,400 00
Total Assets in Trust Funds.....		$85,818 20

LIABILITIES.

Firemen's Pension Fund Account.....		
Police Pension Fund Account.....		
Other Trust Funds and Special Funds, viz.:		
Daniel White Charity Fund.....	$5,000 00	
Dowse Institute Fund.....	10,000 00	
Sanders Temperance Fund.....	10,000 00	
Cemetery Fund Account.....	60,818 20	
Total Liabilities.....		$85,818 20

*For the purposes of this schedule these amounts have been deducted from the Treasurer's general cash (B–II.) and set up here as assets.

In addition to the above items there is a fund from a bequest by Levi Bridge of which the Mayor, President of the Board of Aldermen and President of the Common Council are Trustees.

SCHEDULE B–v.

SINKING FUNDS ASSETS.

CASH IN ALL SINKING FUNDS.....		$264,399 95
INVESTMENTS OF SINKING FUNDS:		
Bonds and Other Securities, viz.:		
(Per list in report of Sinking Funds Commissioners).....	$2,107,400 00	2,107,400 00
Total Assets in Sinking Funds.....		$2,371,799 95

BONDED DEBTS OF THE CITY.

1. GENERAL BONDS:		
a. For General Muncipal Purposes.		
*Funded City Debt.....	$5,489,900 00	
b. For Public Industries.		
†Water Works.....	3,350,600 00	
2. SPECIAL ASSESSMENT BONDS:‡		
Total of Bonded Debts.....		8,840,500 00
Excess of Debts (Net Bonded Debt. See B–VII.).....		$6,468,700 05

* Schedule in detail will be found on pages 294 to 297, inclusive, of the Auditor's Report.

† Schedule in detail will be found on pages 297 and 298 of the Auditor's Report.

‡ Included in 1-a above.

SCHEDULE B–VI.

FIXED ASSETS.

LAND, BUILDINGS, AND EQUIPMENT.

City Buildings:		
Land	$104,300 00	
Buildings	335,000 00	
Equipment	40,973 00	
		$480,273 00
Police Department:		
Land	$2,100 00	
Buildings	20,000 00	
Equipment	17,128 00	
		39,228 00
Fire Department:		
Land	$43,800 00	
Buildings	128,500 00	
Equipment	76,600 00	
		248,900 00
Fire and Police Telegraph, Equipment		40,360 00
Health Department:		
Land	$10,100 00	
Buildings	6,000 00	
Equipment	4,737 74	
		20,837 74
Inspection of Milk and Vinegar, Equipment		609 00
Cemetries:		
Land	$60,000 00	
Buildings	2,500 00	
Equipment	2,210 49	
		64,710 49
Sealer of Weights and Measures, Equipment		1,827 25
Armories:		
Land	$25,000 00	
Buildings	150,000 00	
Equipment	5,000 00	
		180,000 00
City Home:		
Land	$53,500 00	
Buildings	28,200 00	
Equipment	21,960 00	
		103,660 00
Street Department (Stables, etc.):		
Land	$76,000 00	
Buildings	60,000 00	
Equipment	58,977 47	
		194,977 47

SCHEDULE B–VI. — *Continued.*

Sewer Department (Stables, etc.) :		
Land	$5,900 00	
Buildings	4,100 00	
Equipment	10,441 00	
		$20,441 00
Street Lighting Equipment		3,915 00
Bridge Department:		
Buildings	$2,137 50	
Equipment	259 07	
		2,396 57
Water Works:		
Land, Dams, etc	$1,322,576 95	
Buildings	101,810 40	
Equipment	1,660,223 62	
		3,084,610 97
Schools:		
Land	$376,000 00	
Buildings	1,573,900 00	
Equipment	147,838 30	
		2,097,738 30
Library:		
Land	$85,000 00	
Buildings	145,000 00	
Equipment	72,500 00	
		302,500 00
Parks:		
Land	$4,199,012 29	
Buildings	63,000 00	
Equipment	2,850 00	
		4,264,862 29
Total Fixed Assets. (See B–VII.)		$11,151,847 08

SCHEDULE B–VII.

GENERAL DEFICIT AND SURPLUS ACCOUNT.

DEFICITS.

*Deficit of Current Assets (B–II.), if any.....		
†Deficit of Contingent Assets (B–III.), if any.....		
†Deficit of Trust Funds Assets (B–IV.), if any.....		
†Deficit of Sinking Funds Assets (B–V.), viz.:		
Net Bonded Debt.....		$6,468,700 05
Total of all Deficits.....		$6,468,700 05

SURPLUS.

*Surplus of Current Assets (B–II.), if any.....	$425,344 57	
†Surplus of Contingent Assets (B–III.), if any	35,020 89	
†Surplus of Trust Funds (B–IV.), if any.....		
†Surplus of Sinking Funds (B–V.), if any.....		
Total Surplus, excluding Fixed Assets‡....		460,365 46
Excess of Deficits, viz.:—		
Total Net Debts of the City.....		$6,008,334 59

BALANCE.

Total of Fixed Assets:	
Land, Buildings, Equipments (B–VI.).....	$11,151,847 08
Deduct Total Net Debts of the City, as above.....	6,008,334 59
Balance of this Account, General Surplus (B–I.)....	$5,143,512 49

*Balance of Schedule B-II. will appear under *one* or the *other* of these heads.

†Balance of other schedules, B-III., etc., will appear in like manner.

‡Fixed Assets are set up by themselves under "Balance." (See above.)

CITY FUNDED DEBT.

There have been additions to the City Funded Debt during the year as follows: —

Cambridge Bridge Loan, registered and coupon bonds payable in forty years, at an annual interest of three and one-half per cent.	
For the purpose of the construction of the "Cambridge Bridge" and its approaches, and for other purposes, as authorized under the provisions of Chapter 467 of the Legislative Acts of 1898	$150,000 00
Building Loan, registered bonds payable in twenty years, at an annual interest of three and one-half per cent.	
For the purpose of defraying the cost of land purchased for a site for an Engine House under the provisions of Chapter 212 of Acts of 1894	3,000 00
Park Loan, registered bonds payable in forty years, at an annual interest of three and one-half per cent.	
For the purpose of paying for property purchased, taken or held for a public park or esplanade as authorized by Chapter 341 of the Acts of 1892, Chapter 337 Acts of 1893 and Acts in amendment thereof and in addition thereto, and also for defraying the expense of constructing such park or esplanade and for any purpose incident to the protection, enlargement or advancement of a public park or esplanade in said City of Cambridge, as authorized by Chapter 221 of the Acts of the year 1899	50,000 00
Schoolhouse Loans, registered bonds payable in twenty years, at an annual interest of three and one-half per cent.	
For the purpose of the construction of a schoolhouse on Elm Street as authorized by the provisions of Chapter 212 of the Acts of 1894	80,000 00
Sewer Loan, registered bonds payable in thirty years, at an annual interest of three and one-half per cent.	
For the purpose of constructing sewers, as authorized by Chapters 189 and 473 of the Acts of 1899	60,000 00
Street Loan, registered bonds payable in twenty years, at an annual interest of three and one-half per cent.	
For the purpose of the construction of highways, streets and ways and for defraying the cost on any real estate or interest therein taken for such highways, streets, ways or buildings, under authority conferred by Chapter 212 of the Acts of 1894	16,000 00
	$359,000 00

There has been a decrease in the City Debt by the payment of matured bonds as follows: —

Building Loan, coupon bonds issued Nov. 1, 1893, at an annual interest of four per cent.	$40,000 00	
Sewer Loan, coupon bonds issued July 1, 1873, at an annual interest of six per cent.	136,000 00	
Street Widening Loan, coupon bonds issued July 1, 1873, at an annual interest of six per cent.	10,000 00	
		186,000 00
Total increase		$173,000 00

	1902.	1903.	Increase.
Funded City Debt	$5,316,900 00	$5,489,900 00	$173,000 00
Sinking Funds	1,095,255 09	1,108,978 49	13,723 40
Net Funded City Debt	$4,221,644 91	$4,380,921 51	$159,276 60

The following is a statement of the total funded debt of the City, with the rates of interest thereon :—

BRIDGE LOAN.

Date of Issue.	Rate of Interest.	When Due.	Amount.	Total.
Oct. 1, 1887.....	4 per cent.—30 yrs....	Oct. 1, 1917.....	$10,000 00	
July 1, 1888.....	4 " —30 "	July 1, 1918.....	100,000 00	
Sept. 1, 1888.....	4 " —30 "	Sept. 1, 1918.....	100,000 00	
Mar. 1, 1889.... ...	4 " —30 "	Mar. 1, 1919.....	115,000 00	
Nov. 1, 1890.....	4 " —30 "	Nov. 1, 1920.....	5,000 00	
July 1, 1891	4 " —30 "	July 1, 1921.....	60,000 00	
Aug. 1, 1893.....	4 " —30 "	Aug. 1, 1923	10,000 00	
July 1, 1899.....	3½ " —40 "	July 1, 1939	50,000 00	
July 2, 1900.....	3½ " —40 "	July 2, 1940.....	100,000 00	
Feb. 1, 1901.....	3 " —40 "	Feb. 1, 1941.....	100,000 00	
Nov. 1, 1901.....	3½ " —40 "	Nov. 1, 1941.....	100,000 00	
July 1, 1902.....	3½ " —40 "	July 1, 1942.....	100,000 00	
Jan. 1, 1903.... ...	3½ " —40 "	Jan. 1, 1943.....	50,000 00	
April 1, 1903.....	3½ " —40 "	Apr. 1, 1943.....	50,000 00	
Aug. 1, 1903.....	3½ " —40 "	Aug. 1, 1943.....	50,000 00	$1,000,000 00

BUILDING LOAN.

Aug. 1, 1894.....	4 per cent.—20 yrs....	Aug. 1, 1914.....	$118,000 00	
Oct. 1, 1895.....	4 " —20 "	Oct. 1, 1915.....	60,000 00	
Oct. 1, 1896.....	4 " —20 "	Oct. 1, 1916.....	103,000 00	
April 1, 1903.....	3½ " —20 "	Apr. 1, 1923.....	3,000 00	$284,000 00

CAMBRIDGE CEMETERY LOAN.

Aug. 1, 1885.....	4 per cent.—20 yrs....	Aug. 1, 1905.....	$65,000 00	
Nov. 1, 1900.....	3½ " —10 "	Nov. 1, 1910.....	7,000 00	$72,000 00

CITY LOAN.

Aug. 1, 1894.....	4 per cent.—10 yrs....	Aug. 1, 1904.....	$52,000 00	
Aug. 1, 1898.....	3½ " —10 "	Aug. 1, 1908.....	4,900 00	
July 1, 1899.....	3½ " —10 "	July 1, 1909.....	45,000 00	
Nov. 1, 1899.....	3½ " —10 " ...	Nov. 1, 1909.....	32,000 00	
Nov. 1, 1900.....	3½ " —10 "	Nov. 1, 1910.....	36,000 00	
Nov. 1, 1901.....	3½ " —10 "	Nov. 1, 1911.....	36,000 00	
July 1, 1902.....	3½ " —10 "	July 1, 1912.....	38,000 00	
Nov. 1, 1902.....	3½ " —10 "	Nov. 1, 1912.....	20,000 00	$263,900 00

CLAY LAND LOAN.

July 1, 1896.....	4 per cent.—15 yrs...	July 1, 1911.....	$50,000 00	
Nov. 1, 1897.....	3½ " —15 "	Nov. 1, 1912.....	20,000 00	
Aug. 1, 1898.... ...	3½ " —15 "	Aug. 1, 1913.....	10,000 00	
July 1, 1899.....	3½ " —15 "	July 1, 1914.....	17,000 00	$97,000 00

HOSPITAL LOAN.

July 1, 1902.....	3½ per cent.—20 yrs....	July 1, 1922.....		$6,000 00

Amount carried forward $1,722,900 00

Amount brought forward $1,722,900 00

METROPOLITAN PARK ASSESSMENT LOAN.

Aug. 1, 1902	3½ per cent.—30 yrs....	Aug. 1, 1932.....			$46,000 00

PARK LOAN.

Feb. 1, 1894.....	4 per cent.—30 yrs....	Feb. 1, 1924.....	$360,000 00		
Aug. 1, 1895	4 " —40 "	Aug. 1, 1935.....	100,000 00		
Feb. 1, 1896.....	4 " —40 "	Feb. 1, 1936.....	100,000 00		
Aug. 1, 1896.....	4 " —30 "	Aug. 1, 1926.	100,000 00		
Oct. 1, 1896.....	4 " —30 "	Oct. 1, 1926.....	40,000 00		
Sept. 1, 1897.....	3½ " —40 "	Sept. 1, 1937.....	100,000 00		
Nov. 1, 1897.....	3½ " —40 "	Nov. 1, 1937.....	50,000 00		
June 1, 1898.....	3½ " —40 "	June 1, 1938.....	50,000 00		
Aug. 1, 1898.....	3½ " —40 "	Aug. 1, 1938.....	100,000 00		
Aug. 1, 1899..... .	3½ " —40 "	Aug. 1, 1939.....	100,000 00		
July 2, 1900.....	3½ " —40 "	July 2, 1940.....	50,000 00		
Nov. 1, 1900.....	3½ " —40 "	Nov. 1, 1940.....	50,000 00		
Nov. 1, 1901.....	3½ " —40 "	Nov. 1, 1941.....	100,000 00		
July 1, 1902.....	3½ " —40 "	July 1, 1942.....	48,000 00		
April 1, 1903.....	3½ " —40 "	April 1, 1943.....	50,000 00		$1,398,000 00

PAVING LOAN.

Oct. 1, 1897.....	3½ per cent.—10 yrs....	Oct. 1, 1907.....			$20,000 00

PUBLIC LIBRARY LOAN.

Nov. 1, 1901.....	3½ per cent.—20 yrs....	Nov. 1, 1921			$27,000 00

SCHOOLHOUSE LOAN.

Oct. 1, 1896.....	4 per cent.—20 yrs....	Oct. 1, 1916.....	$6,000 00		
July 1, 1897.....	3½ " —20 "	July 1, 1917.....	100,000 00		
Nov. 1, 1897.... ...	3½ " —10 "	Nov. 1, 1907.....	9,500 00		
May 2, 1898.....	3½ " —20 "	May 2, 1918.....	100,000 00		
June 1, 1898..... .	3½ " —20 "	June 1, 1918.....	50,000 00		
Aug. 1, 1898.....	3½ " —20 "	Aug. 1, 1918	142,000 00		
July 1, 1899.....	3½ " —20 "	July 1, 1919.. ...	42,000 00		
Nov. 1, 1899.....	3½ " —20 " ...	Nov. 1, 1919.....	13,000 00		
July 1, 1901.....	3½ " —20 "	July 1, 1921.....	76,000 00		
July 1, 1902	3½ " —20 "	July 1, 1922.....	86,500 00		
Oct. 1, 1902.....	3½ " —20 "	Oct. 1, 1922.....	11,000 00		
Oct. 1. 1903.....	3½ " —20 "	Oct. 1, 1923.....	80,000 00		$716,000 00

SEWER LOAN.

July 1, 1874.....	6 per cent.—30 yrs ...	July 1, 1904.....	$295,000 00		
July 1, 1875.....	6 " —30 " ...	July 1, 1905.....	144,000 00		
Nov. 1, 1887.....	4 " —20 "	Nov. 1, 1907.....	30,000 00		
Nov. 1, 1889.....	4 " —20 "	Nov. 1, 1909.....	22,000 00		
May 1, 1890.....	4 " —20 "	May 1, 1910.....	15,000 00		
July 1, 1891.....	4 " —20 "	July 1, 1911.....	15,000 00		
Aug. 1, 1894.....	4 " —30 "	Aug. 1, 1924.....	75,000 00		
Oct. 1, 1895.....	4 " —30 "	Oct. 1, 1925.....	60,000 00		
Oct. 1, 1896.....	4 " —20 "	Oct. 1, 1916.....	75,000 00		
Nov. 1, 1899.....	3½ " —30 "	Nov. 1, 1929.....	42,000 00		
July 2, 1900.....	3½ " —30 "	July 2, 1930.....	100,000 00		
Aug. 1, 1901.....	3½ " —30 " ...	Aug. 1, 1931.....	110,000 00		
Nov. 1, 1902.....	3½ " —30 "	Nov. 1, 1932.....	20,000 00		
April 1, 1903.....	3½ " —30 "	April 1, 1933.....	40,000 00		
Oct. 1, 1903.....	3½ " —30 "	Oct. 1, 1933.....	20,000 00		$1,063,000 00

Amount carried forward $4,992,900 00

Amount brought forward $4,992,900 00

STREET LOAN.

Aug. 1, 1894	4 per cent.—20 yrs.	Aug. 1, 1914	$30,000 00	
Oct. 1, 1895	4 " —20 "	Oct. 1, 1915	60,000 00	
Oct. 1, 1896	4 " —20 "	Oct. 1, 1916	137,000 00	
Nov. 1, 1897	3½ " —10 "	Nov. 1, 1907	11,000 00	
May 2, 1898	3½ " —20 "	May 2, 1918	15,000 00	
Nov. 1, 1899	3½ " —20 "	Nov. 1, 1919	5,000 00	
Nov. 1, 1900	3½ " —20 "	Nov. 1, 1920	21,000 00	
July 1, 1901	3½ " —20 "	July 1, 1921	54,000 00	
July 1, 1902	3½ " —20 "	July 1, 1922	30,000 00	
Nov. 1, 1902	3½ " —20 "	Nov. 1, 1922	14,000 00	
April 1, 1903	3½ " —20 "	April 1, 1923	4,000 00	
Nov. 2, 1903	3½ " —20 "	Nov. 2, 1923	12,000 00	$393,000 00

STREET WIDENING LOAN.

July 1, 1874	6 per cent.—30 yrs.	July 1, 1904	$90,000 00	
July 1, 1875	6 " —30 "	July 1, 1905	14,000 00	$104,000 00

TOTAL FUNDED CITY DEBT $5,489,900 00

Following is a statement of the total Funded Water Debt of the City, with rates of interest thereon:—

Date of Issue.	Rate of Interest.	When Due.	Amount.	Total.
Nov. 1, 1886	3½ per cent.—20 years	Nov. 1, 1906	$43,000 00	
Oct. 1, 1887	4 " 20 "	Oct. 1, 1907	90,000 00	
Nov. 1, 1887	4 " 20 "	Nov. 1, 1907	22,000 00	
July 1, 1888	4 " 20 "	July 1, 1908	46,000 00	
Aug. 1, 1888	4 " 20 "	Aug. 1, 1908	25,000 00	
July 1, 1889	4 " 20 "	July 1, 1909	20,000 00	
May 1, 1885	4 " 25 "	May 1, 1910	288,000 00	
July 1, 1890	4 " 20 "	July 1, 1910	75,000 00	
Sept. 1, 1890	4 " 20 "	Sept. 1, 1910	125,000 00	
Jan. 1, 1891	4 " 20 "	Jan. 1, 1911	20,000 00	
Oct. 1, 1891	4 " 20 "	Oct. 1, 1911	35,000 00	
Jan. 1, 1892	4 " 20 "	Jan. 1, 1912	150,000 00	
May 2, 1892	4 " 20 "	May 2, 1912	75,000 00	
Nov. 1, 1892	4 " 20 "	Nov. 1, 1912	45,000 00	
Feb. 1, 1893	4 " 20 "	Feb. 1, 1913	100,000 00	
Aug. 1, 1893	4 " 20 "	Aug. 1, 1913	50,000 00	
April 1, 1895	4 " 20 "	April 1, 1915	200,000 00	
Aug. 1, 1895	4 " 20 "	Aug. 1, 1915	200,000 00	
April 1, 1894	4 " 30 "	April 1, 1924	300,000 00	
April 1, 1896	4 " 20 "	April 1, 1916	100,000 00	
July 1, 1896	4 " 20 "	July 1, 1916	200,000 00	
Aug. 1, 1896	4 " 20 "	Aug. 1, 1916	100,000 00	
Oct. 1, 1896	4 " 20 "	Oct. 1, 1916	265,100 00	
April 1, 1897	3½ " 20 "	April 1, 1917	200,000 00	
July 1, 1897	3½ " 20 "	July 1, 1917	100,000 00	
Nov. 1, 1897	3½ " 20 "	Nov. 1, 1917	75,000 00	
Dec. 1, 1897	3½ " 20 "	Dec. 1, 1917	140,000 00	
May 2, 1898	3½ " 20 "	May 2, 1918	50,000 00	
June 1, 1898	3½ " 20 "	June 1, 1918	60,000 00	
Nov. 1, 1898	3½ " 20 "	Nov. 1, 1918	50,000 00	
Nov. 1, 1899	3½ " 20 "	Nov. 1, 1919	23,000 00	
Nov. 1, 1900	3½ " 20 "	Nov. 1, 1920	30,000 00	
July 1, 1901	3½ " 20 "	July 1, 1921	30,000 00	
July 1, 1902	3½ " 20 "	July 1, 1922	13,500 00	
Nov. 1, 1902	3½ " 20 "	Nov. 1, 1922	5,000 00	$3,350,600 00

	1902.	1903.	Decrease.	Increase.
Funded Water Debt	$3,350,600 00	$3,350,600 00		
Sinking Fund	1,107,635 98	1,262,821 46		$155,185 48
Net Funded Water Debt	$2,242,964 02	$2,087,778 54	$155,185 48	

RECAPITULATION.

Amount of funded City Loan upon which interest is at 6 per cent.	$543,000 00	
Amount of funded City Loan upon which interest is at 4 per cent.	2,073,000 00	
Amount of funded City Loan upon which interest is at 3½ per cent.	2,773,900 00	
Amount of funded City Loan upon which interest is at 3 per cent.	100,000 00	
		$5,489,900 00
Amount of Water Loan upon which interest is at 4 per cent.	$2,531,100 00	
Amount of Water Loan upon which interest is at 3½ per cent.	819,500 00	
		3,350,600 00

Temporary loans for the past twelve years, and interest upon the same: —

Year.	Temporary Loan.	Interest paid upon Loan.	Year.	Temporary Loan.	Interest paid upon Loan.
1892	$516,000	$8,015 51	1898	$500,000	$9,642 86
1893	541,850	11,560 32	1899	550,000	6,968 86
1894	125,000	3,106 15	1900	600,000	9,961 96
1895	550,000	6,194 64	1901	550,000	6,759 03
1896	786,000	12,344 07	1902	520,000	8,337 76
1897	600,000	6,186 40	1903	701,000	9,388 13

THE TRUST FUNDS.

Assumed by the City are held by trustees, and interest is paid upon them at the rate of 6 per cent. annually, as follows: —

Name of Fund.	Amount.	Interest.	
Daniel White Charity Fund	$5,000	At 6 per cent	$300
Dowse Institute Fund	10,000	At 6 per cent	600
Sanders Temperance Fund	10,000	At 6 per cent	600
	$25,000		$1,500

CEMETERY FUND.

Amount of Fund Nov. 30, 1902		$58,234 68
RECEIVED.		
For perpetual care of lots in Cambridge Cemetery	$2,583 52	
Interest on investments	2,184 68	
	$4,768 20	
EXPENDED.		
For care of lots in Cambridge Cemetery	2,184 68	
		2,583 52
Amount of Fund Nov. 30, 1903		$60,818 20
Of which amount $132.00 is a Fund for Deeds in Trust.		
The Cemetery Fund is held in trust and is invested as follows:—		
City of Cambridge Bonds	$57,400 00	
Cambridgeport Savings Bank	3,418 20	
		60,818 20

SINKING FUND "CAMBRIDGE BRIDGE."

Amount of Fund Nov. 30, 1902	$7,392 52
Interest accumulations (1903)	223 45
Appropriation for 1903	6,000 00
Amount of Fund Nov. 30, 1903	$13,615 97

SINKING FUND "HARVARD BRIDGE."

Amount of Fund Nov. 30, 1902	$138,698 14
Interest accumulations for 1903	4,192 14
Appropriation for 1903	8,800 00
	$151,690 28

SINKING FUND "HOSPITAL."

Appropriation for 1903	$225 00

SINKING FUND "METROPOLITAN PARK ASSESSMENT."

Appropriation for 1903	$1,012 00

SINKING FUND "PARK."

Amount of Fund Nov. 30, 1902	$131,280 08
Interest accumulations for 1903	3,967 93
Appropriation for 1903	22,306 67
	$157,554 68

SINKING FUND "CLAY LAND."

Amount of Fund Nov. 30, 1902	$27,299 52
Interest accumulations for 1903	825 12
Appropriation for 1903	5,335 00
	$33,459 64

SINKING FUND "IMPROVED SEWERAGE."

Amount of Fund Nov. 30, 1902	$10,113 47
Interest accumulations for 1903	305 68
Appropriation for 1903	5,764 00
	$16,183 15

SINKING FUNDS "GENERAL."

Amount of Fund Nov. 30, 1902	$780,471 36
Interest Accumulations for 1903	33,698 66
Appropriation for 1903	107,067 75
	$921,237 77

EXPENDED.

For Commissioners of Sinking Funds	186,000 00
Amount of Fund Nov. 30, 1903	$735,237 77

COMMISSIONERS OF SINKING FUNDS.

Amount of Funds Nov. 30, 1902		$1,095,255 09

RECEIVED.

From City Treasurer, appropriations for 1903: —		
Cambridge Bridge.	$6,000 00	
Clay Lands	5,335 00	
General	107,067 75	
Harvard Bridge	8,800 00	
Improved Sewerage	5,764 00	
Parks	22,306 67	
Hospital	225 00	
Metropolitan Park Assessments	1,012 00	
		156,510 42
Interest accumulations		43,702 78
		$1,295,468 29

EXPENDED.

For matured bonds as follows: —		
Building Loan, due Nov. 1, 1903	$40,000 00	
Sewer Loan, due July 1, 1903	136,000 00	
Street Widening Loan, due July 1, 1903	10,000 00	
Premiums on investments	178 30	
Accrued interest on investments	311 50	
		186,489 80
		$1,108,978 49

TRUSTEES OF SINKING FUND OF WATER WORKS.

Amount of Fund Nov. 30, 1902		$1,107,635 98
RECEIVED		
From City Treasurer for amount due and appropriated by the City Council together with the surplus revenue of the Water Works	$123,145 78	
Interest accumulations	32,039 70	
		155,185 48
Amount of Fund Nov. 30, 1903		$1,262,821 46

TAXES.

The amount of taxes assessed by the Board of Assessors on the real and personal estates and polls of Cambridge, for the year 1903, was as follows: —

Valuation of real estate	$87,063,400 00
Valuation of personal estate	17,708,510.00
	$104,771,910.00
Assessed at $16.90 per $1,000 gives	$1,770,645.279
25,749 polls at $2	51,498.000
Bank stock (non-residents separately assessed)	6,313.671
	$1,828,456.950
The tax is divided as follows: —	
For City purposes*	1,458,281.83
County assessments.	104,400.56
Overlay	55,616.159
State assessments	203,844 73
State charge for non-resident bank stock	6,313.671
	$1,828,456.950
Increase in number of polls since last year: —	
69 polls at $2	$138.00
Increase in real estate valuation	6,666,500.00
	$6,666,638.00
Decrease in personal valuation	34,475.00
Gain in valuation since last year	$6,632,163.00
Number of houses in 1903	14,833
Number of houses in 1902	13.889⅔
Number of houses built during the past year	943⅓
Number of horses assessed	4,363
Number of cows assessed	161
Number of swine assessed	58
Number of mules assessed	18
Number of hens assessed	100

*To meet the City expenses the income from various departments is added to this sum raised by taxation.

POLLS AND VALUATION OF POLLS AND ESTATES, MAY 1, 1901.

Wards.	Polls.	Valuation of Polls.	Personal.	Real Estate.	Total Real and Personal	Dwellings.	Total Tax.
One.....	4,234	$8,468 00	$7,536,300	$22,540,800	$30,077,100	2,722	$516,770.99
Two.....	7,807	15,614 00	3,802,460	17,179,400	20,981,860	3,698 2-3	370,207.434
Three.....	3,697	7,394 00	2,154,615	10,113,700	12,268,315	1,615	214,728.5235
Four.....	5,795	11,590 00	2,487,100	16,341,900	18,829,000	3,345	329,800.10
Five	3,773	7,546 00	1,668,100	12,392,500	14,060,600	2,465 5-6	245,170.14
Totals.....	25,306	$50,612 00	$17,648,575	$78,568,300	$96,216,875	13,846 1-2	$1,676,677.1875

POLLS AND VALUATION OF POLLS AND ESTATES, MAY 1, 1902.

Wards.	Polls.	Valuation of Polls.	Personal.	Real Estate.	Total Real and Personal	Dwellings.	Total Tax.
One.....	2,002	$4,004 00	$1,661,120	$7,584,600	$9,245,720	817	$173,200.676
Two.....	1,839	3,678 00	358,800	2,912,100	3,270,900	787	63,535.47
Three.....	2,858	5,716 00	259,000	3,578,700	3,837,700	1,200	75,945.91
Four.....	2,927	5,854 00	1,625,085	6,866,400	8,491,485	1,399	161,248.1755
Five.....	2,217	4,434 00	1,929,080	7,063,900	8,992,980	1,163 1-6	169,005 534
Six	3,302	6,604 00	1,267,100	9,894,500	11,161,600	1,597	210 861.28
Seven.....	2,741	5,482 00	1,429,700	6,751,000	8,180,700	1,754 1-2	155,188.81
Eight.....	2,132	4,264 00	2,868,600	10,612,400	13,481,000	1,301	250,966.30
Nine.....	1,850	3,700 00	4,615,000	12,632,700	17,247,700	1,384	319,332.91
Ten	1,550	3,100 00	1,324,200	6,960,400	8,284,600	1,131	154,708.18
Eleven	2,262	4,524 00	405,300	5,540,200	5,945,500	1,356	113,326.65
Totals.....	25,680	$51,360 00	$17,742,985	$80,396,900	$98,139,885	13,889 2-3	$1,847,319.8955

POLLS AND VALUATION OF POLLS AND ESTATES, MAY 1, 1903.

Wards.	Polls.	Valuation of Polls.	Personal.	Real Estate.	Total Real and Personal	Dwellings.	Total Tax.
One.....	1,974	$3,948 00	$1,511,050	$8,277,700	$9,788,750	814	$169,377.875
Two.	1,861	3,722 00	427,600	3,071,300	3,498,900	787	62,853 41
Three..	2,880	5,760 00	198,000	3,639,800	3,837,800	1,190 1-2	70,618.82
Four.....	3,006	6,012 00	1,745,000	7,266,500	9,011,500	1,383	158 306.35
Five.....	2,276	4,552 00	2,182,780	7,564,600	9,747,380	1,099 1-2	169,282.722
Six	3,197	6,394 00	1,181,400	10,290,600	11,472,000	1,609	200,270.80
Seven.....	2,788	5,576 00	1,505,600	7,088,100	8,593,700	1,759 1-2	150,809.53
Eight.....	2,066	4,132 00	2,428,200	12,499,400	14,927,600	1,321	256,408 44
Nine.....	1,865	3,730 00	4,862,580	13,876,100	18,738,680	1,421	320,413 692
Ten	1,523	3,046 00	1,244,800	7,528,100	8,772,900	1,090	151,308.01
Eleven	2,313	4,626 00	421,500	5,961,200	6,382,700	2,358 1-2	112,493.63
Totals.....	25,749	$51,498 00	$17,708,510	$87,063,400	$104,771,910	14,833	$1,822,143.279

Statement of the valuations of the personal property and real estate of the City of Cambridge, with the number of polls, dwellings, and rate of taxation for the past fourteen years: —

Year.	Polls.	Personal.	Real Estate.	Total.	Dwellings.	Rate per $1,000.
1890	19,221¾	$15,339,925	$52,235,000	$67,574,925	10,615	$15 60
1891	20,731¼	16,508,770	54,167,914	70,676 684	10,932	15 50
1892	22,013¼	17,687,595	56,668,100	74,355,695	11,359	15 00
1893	22,752	17,511,089	58,782,900	76,293,989	11,768	16 40
1894	22,172	16,658,320	60,877,300	77,535,620	12,262	15 80
1895	22,781	16,607,360	64,303,700	80,911,060	12,305	15 70
1896	23,847	15,914,995	67,835,100	83,750,095	12,723	15 10
1897	24,407	16,302,545	70,339,200	86,641,745	13,217	17 50
1898	24,628	16,642,990	72,908,100	89,551,090	13,473	16 40
1899	24,995	16,991,995	74,550,800	91,542,795	13,588	17 10
1900	25,117	17,865,230	76,600,700	94,465,930	13,713	16 90
1901	25,306	17,648,575	78,568,300	96,216,875	13,846½	16 90
1902	25,680	17,742,985	80,396,900	98,139,885	13,889⅔	18 30
1903	25,749	17,708,510	87,063,400	104,771,910	14,833	16 90

Abatements and discounts upon taxes for the past fourteen years, and amount of tax uncollected December 1, 1903: —

Year.	Total Tax.	Total Abatement.	Total Discounts.	Amount of Tax uncollected December 1, 1903
1890	$1,099,741 38	$20,966 82	$28,012 44	.....
1891	1,143,712 67	21,343 12	.....	.....
1892	1,240,186 50	21,636 54	.....	.....
1893	1,303,639 84	24,678 10	.....	.....
1894	1,278,899 72	26,926 07	.....	.....
1895	1,324,613 76	19,427 40	.....	.....
1896	1,321,932 65	17,922 54	.....	.....
1897	1,574,047 50	22,081 73	.....	$26,918 17
1898	1,527,863 88	27,566 98	.....	27,229 08
1899	1,623,592 35	35,317 61	.....	22,324 78
1900	1,654,588 36	33,005 90	.....	24,592 92
1901	1,683,690 84	24,390 38	.....	23,812 52
1902	1,854,557 82	30,013 44	.....	45,574 47
1903	1,828,456 95	41,525 33	.....	431,608 30

ABATEMENTS — TAXES.

	Real.	Personal.	Polls.	Total.
Taxes of 1898	.....	.....	$4 00	$4 00
" " 1899	.....	$32 49	2 00	34 49
" " 1900	.....	33 80	8 00	41 80
" " 1901	$19 82	901 79	30 00	951 61
" " 1902	4,936 69	8,193 88	150 00	13,280 57
" " 1903	18,292 88	5,635 52	114 00	24,042 40
	$23,249 39	$14,797 48	$308 00	$38,354 87

The valuation of estates in this City, for the years hereinbefore mentioned, are the same as originally made by the Board of Assessors, during those years and the same figures were reported by that Board to the Tax Commissioners for

each of the years respectively. These valuations were subject to changes in each year, after such report was made, as shown by the following: —

Net valuations of estates in the City of Cambridge, for the past three years, after adding the amounts of all supplementary warrants and deducting therefrom all abatements: —

Year.	Total Valuation.	Abatements.	Net Valuation.
1901	$96,300,635	$1,524,016	$94,776,619
1902	98,229,932	1,596,868	96 633,064
1903	104,820,210	1,415,882	103,404,328
	$299,350,777	$4,536,766	$294,814,011

BORROWING CAPACITY.

The average net valuation of the City of Cambridge for the years 1901, 1902 and 1903 . . . . $98,271,337

This last sum represents the amount upon which the limit of the rate of taxation, and also of muncipal indebtedness is fixed under the provisions of Chapter 312 of the acts of the year 1885.

2½ per cent. on same is		$2,456,783 43
The entire City Debt is	$5,489,900 00	
Of this amount the following loans are not within the legal debt limit, being exempted by the following Acts of the Legislature: —		
Cambridge Bridge Loan.		
Acts of 1898, Chapter 467	$600,000 00	
Clay Land Loan.		
Acts of 1896, Chapter 175 . . .	97,000 00	
Harvard Bridge Loan.		
Acts of 1887, Chapter 282 Acts of 1888, Chapter 73 Acts of 1891, Chapter 311 . .	400,000 00	
Park Loan.		
Acts of 1892, Chapter 341 Acts of 1893, Chapter 337 Acts of 1894, Chapter 89 Acts of 1897, Chapter 469 Acts of 1899, Chapter 221 . .	1,398,000 00	
Sewer Loan.		
Acts of 1899, Chapter 189 Acts of 1899, Chapter 473 . .	302,000 00	
	$2,797,000 00	
Amounts carried forward . .	$2,692,900 00	$2,456,783 43

Amounts brought forward . . .		$2,692,900 00	$2,456,783 43
Hospital Loan.			
Acts of 1895, Chapter 99 . . .	6,000 00		
Metropolitan Park Assessment Loan.			
Acts of 1902, Chapter 325 . . .	46,000 00		
		2,849,000 00	
		$2,640,900 00	
The entire Sinking Fund is . . .	$1,108,978 49		
Of this amount there should be deducted on account of Exempted Loans as follows:—			
Cambridge Bridge . .	$13,615 97		
Harvard Bridge .	151,690 28		
Parks . . .	157,554 68		
Clay Lands . . .	33,459 64		
Improved Sewerage . .	16,183 15		
Hospital	225 00		
Metropolitan Park Assessment	1,012 00		
	373,740 72		
Net Sinking Fund		735,237 77	
Net City Debt December 1, 1903 . .			1,905,662 23
Borrowing capacity for City purposes December 1, 1903 . . .			$551,121 20

ACTS OF 1885, CHAPTER 312.

"AN ACT TO LIMIT MUNCIPAL DEBT OF AND THE RATE OF TAXATION IN CITIES.

"Be it enacted, etc., as follows:—

"SECTION 1. The taxes assessed on property in any city, except the City of Boston, exclusive of State Tax, County Tax and sums required by law to be raised on account of the City Debt, shall not exceed in any year twelve dollars on every one thousand dollars of the average of the assessors' valuations of the taxable property therein for the preceeding three years, the valuation being first reduced by the amount of all abatements allowed thereon, previous to the thirty-first day of December in the year prceeding said assessment, and any order or appropriation requiring a larger assessment than is herein limited shall be void.

"SECT. 2. The limit of indebtedness of cities shall hereafter be two and one-half per cent. on the average valuation prescribed in Section one of this act."

TAX LEVY.

Average net valuation for 1901, 1902 and 1903	$98,271,337 00
Assessed at $12 per $1,000 gives	1,179,256 00

Which is the legal limit of taxation for muncipal purposes for 1903, outside of the Sinking Fund requirements, Interest on the Debt and State and County Tax, unless advantage is taken of the following Legislative Act of 1893:—

ACTS OF 1893, CHAPTER 247.

"AN ACT AUTHORIZING ASSESSORS IN CITIES OF LESS THAN ONE HUNDRED THOUSAND INHABITANTS TO USE THE VALUATION OF THE YEAR PRECEDING AS A BASIS OF TAXATION.

"Be it enacted etc., as follows: —

"SECTION 1. In every city containing less than one hundred thousand inhabitants, the taxes assessed on property, exclusive of State Tax, County Tax and sums required by law to be raised on account of City Debt, shall not exceed in any year twelve dollars on every one thousand dollars of the assessors' valuation of the taxable property therein for the preceding year, said valuation being first reduced by the amount of all abatements allowed thereon previous to the thirty-first day of December in the year preceding said assessment, and any order or appropriation requiring a larger assessment than is herein limited shall be void; but the City Council of any city coming within the provisions of this Act may, in any year, decide that the taxes assessed shall be raised in accordance with the provisions of Section one of Chapter three hundred and twelve of the Acts of the year eighteen hundred and eighty five."

In which case the net valuation for 1903 being	$103,404,328 00
Assessed at $12 per $1,000 gives	1,240,852 00

ESTIMATED RECEIPTS AND ACTUAL RECEIPTS FOR THE YEAR ENDING NOVEMBER 30, 1903.

	Actual.	Estimated.
Assessors' Department	$1 50	.....
Bridge Department	398 91	$400 00
Cemetery Department	16,890 99	18,500 00
City Clerk Department	2,662 34	2,800 00
City Messenger Department	1,059 31	1,200 00
Contingent Fund	6,338 42	.....
Electrical Department	153 10	150 00
Fire Department	190 50	125 00
Health Department	2,869 20	.....
Inspection of Milk and Vinegar Department	124 00	150 00
Interest	12,122 02	11,000 00
Law Department	500 00	500 00
City Home	1,185 64	900 00
Farm	3,922 64	5,000 00
House Offal	10,359 99	9,500 00
Outside Aid	2,476 29	3,500 00
Park Department: —		
Rents, etc.	2,101 66	2,325 00
Bath House, etc.	1,195 17	1,500 00
Brown Tail Moth Extermination	250 03	.....
Plumbers' Examiners	31 00	50 00
Police Department	4,941 20	5,000 00
Public Library	4,920 12	5,300 00
Public Property	24,662 11	4,700 00
School Department: —		
Tuition of Non-residents	8,503 85	8,000 00
Supplies	517 44	500 00
Sealer of Weights and Measures	911 26	900 00
Sewer Department: —		
Assessments, etc.	1,554 83	3,750 00
Labor and Materials	1,764 83	1,700 00
State Aid	15,209 00	15,000 00
Street Department: —		
Maintenance	2,215 29	2,500 00
Paving	9,673 61	15,000 00
Watering	17,721 73	17,500 00
Treasury Department	2,401 03	3,000 00
Water Works	352,262 30	324,113 00
Betterments	3,795 05	.....
Grade Crossings	15,150 00	.....
Tax, Corporation	85,827 41	80,000 00
Tax, National Bank	12,081 92	9,500 00
	$628,945 69	$554,063 00

The surplus receipts were appropriated and expended as follows: —

Contingent Fund	$6,338 42
Grade Crossings	15,150 00
Health Department	2,869 20
Park Department	250 03
Schoolhouses	20,182 50
Street Department	450 11
Sewer Department	1,000 00
Water Works	28,149 30
	$628,452 56

The following appropriations were to be provided for by the issue of bonds as follows: —

	Appropriations.	Bonds Issued for.
Cambridge Bridge	$150,000 00	$150,000 00
Land for Engine House	3,000 00	3,000 00
Land Damages	31,000 00	16,000 00
Park Construction and Lands	63,000 00	50,000 00
New Schoolhouse, Elm Street	80,000 00	80,000 00
Sewers, Construction	20,000 00	20,000 00
Improved Sewerage	41,000 00	40,000 00
Water Works	17,000 00	.....
Premiums received on bonds issued	.....	5,508 00
	$405,000 00	$364,508 00

The difference in the amount received from sale of bonds and the amount appropriated was made up from unestimated revenue received from various sources.

TRANSFERS.

The following transfers were made from the appropriations mentioned, to make up deficiences occurring in the appropriations to which transfers were made, viz: —

From the Appropriation for	Amounts.	To the Appropriation for	Amounts.
Contingent Fund	$19,523 57	Assessor's Department	$810 00
		Cemetery Department	600 00
		City Clerk Department	75 00
		City Messenger Department	75 00
		Clerk of Committees Department	65 00
		Election Expenses	1,030 19
		Fire Department	96 00
		Overseers of the Poor Department	7,305 92
		Park Department	500 00
		Police Department	1,893 41
		Public Library Department	1,000 00
		Public Property Department	200 00
		School Department	4,395 23
		Street Department	977 82
		Treasury Department	500 00
Sundry Departments (unexpended balances)	10,615 60	Contingent Fund	10,615 60
Bridge Dept., General Expenses	50 00	Bridge Department, Salaries	50 00
Health Department:—		Health Department:—	
Small Pox Hospital	1,000 00	General Expenses	300 00
		Salaries	700 00
Temporary Hospital	765 00	General Expenses	765 00
Public Library:—		Public Library:—	
East Cambridge Branch:—		East Cambridge Branch:—	
Salaries	95 00	General Expenses	95 00
Public Library Dept., Salaries	150 00	Public Library, General Expenses	150 00
Street Department:—		Street Department:—	
Collection of Ashes	200 00	Bridges	200 00
Construction, Commercial Ave	616 09	Construction, Clifton Street	616 09
Watering	100 00	Maintenance, Salaries	100 00
Water Works:—		Water Works:—	
Construction, General	750 00	Construction, Meters	750 00
Maintenance, Stony Brook	3,750 00	Maintenance, Salaries	500 00
		General Expenses	1,250 00
		Pumping	1,000 00
		Fresh Pond	1,000 00
	$37,615 26		$37,615 26

EXPENDITURES OF THE DIFFERENT DEPARTMENTS FROM 1894 TO 1903, INCLUSIVE.

NAMES OF DEPARTMENTS.	Expended in 1894.	Expended in 1895.	Expended in 1896.	Expended in 1897.	Expended in 1898.	Expended in 1899.	Expended in 1900.	Expended in 1901.	Expended in 1902.	Expended in 1903.
Ambulance Department	$625 00	$2,269 15	$2,452 39	.....	.....	.....	.....	.....	.....	.....
Assessors' Department	10,919 65	12,797 40	12,943 24	$13,077 44	$13,552 25	$13,489 10	$13,498 95	$14,158 06	$13,430 51	$13,983 51
Auditing Department	3,983 67	3,352 03	3,567 88	3,511 12	3,489 04	3,470 88	3,571 13	3,649 85	3,773 65	4 046 72
Cemetery Department	17,998 89	16,999 40	20,000 00	19,846 77	19,832 66	19,910 23	21,603 34	20,415 24	18,506 45	16,573 12
City Clerk Department	6,229 55	6,404 25	7,107 04	7,193 53	7,759 82	7,875 84	9,042 78	9,113 18	7,566 75	7 594 68
City Messenger Department	2,587 54	2,645 92	2,763 59	2,799 51	2,859 04	2,555 94	2,562 75	2,599 92	3,222 54	2,729 35
Civil Service Department	224 50	275 00	249 97	248 07	248 85	247 05	249 60	249 80	249 95	245 05
Clerk of Committees Departm'nt	3,597 37	3,708 47	3,925 34	3 946 56	3,972 39	3,968 90	3,970 47	3,990 23	3,999 02	3,657 87
Contingent Fund	15,348 28	14,514 68	16,139 18	7,966 46	11,064 33	13,099 91	25,944 42	16,940 96	13,293 92	17,100 17
Election Expenses	9,692 50	9,476 60	12,463 99	9,943 08	10,861 47	9,948 85	10,196 56	10,429 95	12,676 55	11,974 92
Engineering Department	15,279 50	22,743 52	14,211 55	12,969 29	11,147 34	11,224 85	11,187 79	11,050 64	10,257 33	9,844 41
Executive Department	4,825 08	5,362 15	5,414 08	5,299 35	5,184 26	5,182 88	5,263 48	5,394 49	5,388 00	5,740 92
Fire Department	72,488 69	82,171 99	85 467 88	78,687 13	80,152 89	84,900 23	90,362 64	91,120 04	93,083 78	97,336 98
Health Department	6,097 88	11,482 98	16,999 55	17,059 35	17,496 64	19,754 04	27,245 46	38,989 68	73,941 07	38,304 80
Inspection of Milk and Vinegar	1,350 00	1,388 14	1,586 24	1,583 90	1,499 56	1,500 00	1,499 37	1,670 25	1,674 28	1,599 85
Inspection of Animals	756 06	747 89	793 60	796 19	798 12	793 60	798 05	797 45	777 00	794 25
Inspection of Wires	10,148 01	10,399 82	11,999 74	10,699 98	11,197 60	14,499 98	10,575 99	10,499 95	9,998 71	9,494 12
Interest	126,289 20	118,099 84	132,099 07	134,396 40	135,795 18	139,432 86	150,015 96	153,313 03	164,606 76	227,589 63
Lamp Department	68,988 81	69,926 61	67,325 31	69,264 96	69,182 20	71,980 42	71,998 78	72,775 75	74,249 64	75,176 66
Law Department	3,272 94	3,970 45	5,197 44	5,189 88	5,192 65	5,632 35	5,038 59	4,980 89	5,046 01	4,995 00
Overseers of the Poor Dept	100,810 42	100,841 33	105,379 81	106,373 80	103,983 80	104,845 15	106,154 82	106,629 67	96,747 36	99,784 56
Park Department	258,276 09	222,475 05	256,490 43	211,783 90	217,188 89	175,065 82	165,856 05	226,104 06	157,184 66	81,635 19
Plumbers' Examiners' Dept	119 95	153 81	101 05	116 40	111 50	98 75	115 00	115 00	.....	86 00
Police Department	110,244 91	110,784 22	110,111 14	113,550 42	116,762 59	116,998 35	123,774 68	128,458 58	131,251 70	134,968 00
Public Library	29,875 62	21,064 83	18,493 00	19,823 36	20,078 38	21,224 67	20,267 46	20,622 00	47,676 75	21,348 10
Public Property	187,922 57	154,289 89	176,264 31	222,216 56	258,628 93	332,503 41	167 857 33	201,949 94	123,694 74	214,818 40
School Department	248,265 10	258,766 08	272,481 50	282,400 45	295,673 51	335,372 89	357,691 51	368,233 67	374,024 76	376,974 59
Sealer of Weights and Measures	1,598 95	1,491 29	1,570 52	1,619 73	1,598 46	1,644 02	1,694 97	1,963 73	2,772 22	2,477 11
Sewer Department	92,635 43	87,553 59	106,688 27	64,231 45	52,828 90	84,996 28	108,581 11	105,215 71	87,001 99	95,649 94
Sinking Fund	100,390 00	106,940 00	93,765 00	104,725 00	111,937 50	118,750 00	133,824 00	137,643 50	136,300 16	156,510 42
State Aid	24,669 55	23,159 91	23 209 03	23,491 36	28,751 62	27,218 27	25,413 88	25,410 73	25,493 24	24,993 30
Stationery and Printing	2,739 13	2,843 14	2,939 79	2,847 32	2,869 03	2,983 88	3,021 32	3,199 56	.....	.....
Street Dept. (Roads and Bridges)	285,348 54	259,953 37	323,912 86	412,986 18	249,167 53	326,637 84	373,083 10	509,593 38	551,159 13	422,889 14
Treasury Department	12,542 01	13,471 50	13,995 46	14,415 54	14,282 77	14,699 53	15,478 14	15,596 05	15,378 85	14,943 23
Water Works Department	420,688 47	758,054 81	1,045,529 76	794,197 98	634,583 00	367,048 88	353 607 18	367,545 83	356,468 85	349,520 85
Taxes:—Abatements	26,926 07	19,427 40	17,922 54	22,081 73	27,596 98	35,317 61	33,005 90	24,390 38	33,047 28	41,525 33
Armory	.....	.....	.....	.....	.....	.....	.....	.....	4,154 46	9,766 68
County	68,110 25	73,887 84	78,321 11	73,887 84	79,914 80	87,085 65	85,997 56	100,429 89	100,184 86	104,400 56
Metropolitan Park	.....	.....	.....	.....	.....	.....	.....	.....	96,478 96	34,541 40
Metropolitan Sewer	45,483 43	61,886 21	.....	137,297 30	56,818 94	74,763 08	73,018 92	72,344 93	78,252 17	79,836 65
National Bank	7,372 24	7,136 92	6,632 77	7,995 91	7,459 91	7,681 26	7,167 54	6,935 25	7,802 80	6,740 92
State	62,280 00	46,800 00	54,600 00	54,600 00	48,195 00	48,195 00	48,195 00	55,790 00	47,820 00	79,700 00
Total	$2,467,001 85	$2,729,717 48	$3,131,115 43	$3,075,103 20	$2,739,688 33	$2,712,598 25	$2,668,431 58	$2,950,311 22	$2,988,636 86	$2,901,892 38

COMPARATIVE STATEMENT BY DECADES FROM 1855 TO 1900.

	1855.	1865.	1875.	1885.	1895.	1900.
Population....	20,637	29,112	47,838	59,660	81,643	91,886
Valuation.....	$15,437,100 00	$26,085,909 00	$66,623,014 00	$55,346,555 00	$80,911,060 00	$94,465,659 30
City Tax.. ...	100,604 53	267,708 60	1,060,396 52	804,800 00	1,103,455 30	1,395,452 98
County Tax...	10,137 78	18,280 99	37,580 73	29,381 54	73,887 84	85,997 56
State Tax.....	5,190 00	118,487 00	58,880 00	44,835 00	46,800 00	48,195 00
Tax rate per $1,000.....	7 10	15 00	17 00	15 50	15 70	16 90
Total Expenditures	173,533 58	536,911 82	2,605,267 74	2,354,298 69	3,686,702 54	3,371,183 99
City Debt.....	146,600 00	833,092 00	4,106,843 21	2,361,396 50	3,913,634 23	3,592,904 00
Expenditures by Depts: —						
Bridges.....	890 31	9,007 77	39,068 39	11,829 77	16,297 33	20,179 38
Cemeteries..	6,553 67	16,742 29	19,438 66	80,399 22	16,999 40	21,603 34
Fire Dept....	9,623 70	21,958 74	89,949 99	59,341 15	104,898 59	90,362 64
Lighting Sts.	2,987 32	9,062 24	20,919 04	32,269 07	69,926 61	71,998 78
Pauper Dept.	8,520 41	21,481 52	79,719 54	56,338 24	100,841 33	106,154 82
Police Dept..	4,499 56	22,833 14	71,093 35	78,357 73	110,784 22	123,774 68
Public Libr'y		1,111 77	6,040 04	6,643 51	21,034 83	20,267 46
Schools.....	32,169 16	81,842 47	258,985 15	227,511 77	362,353 79	500,540 53
Sewers.....	4,610 68	3,683 07	135,432 28	40,945 40	149,459 89	108,581 11
Streets.....	14,554 73	35,638 38	155,476 90	148,088 65	252,154 62	279,497 94
Water Works		20,327 79	234,431 03	485,691 04	758,054 81	353,607 18

SCHEDULE OF REAL ESTATE OWNED BY THE CITY OF CAMBRIDGE, AS SHOWN ON THE ASSESSORS' BOOKS, NOVEMBER 30, 1903.

Cambridge Cemetery: —			
54 8-10 acres of land		$60,000 00	
1 house		2,500 00	
			$62,500 00
Cambridge Public Library: —			
141,666 feet of land		85,000 00	
Library Building		145,000 00	
			230,000 00
Fire Department: —			
Hook and Ladder No. 2, Portland St.	$12,000 00		
11,931 feet of land	4,800 00		
		16,800 00	
Engine House No. 5, junction Cambridge and Hampshire Streets	10,000 00		
6,000 feet of land	5,000 00		
		15,000,00	
Engine House, south side Main, corner Deacon Street.	12,000 00		
9,400 feet of land	7,300 00		
		19,300 00	
Engine House, Massachusetts Avenue	23,000,00		
9,532 feet of land	9,500 00		
		32,500 00	
Engine House No. 4, and stable, Massachusetts Avenue	5,300 00		
6,316 feet of land	5,000,00		
		10,300 00	
Engine House No. 6, River Street	12,000 00		
4,994 feet of land	2,500 00		
		14,500 00	
Engine House, east side Lexington Avenue	16,000 00		
15,262 feet of land	4,000 00		
		20,000 00	
Engine House, Massachusetts Avenue	26,000 00		
10,000 feet of land	10,000 00		
		36,000 00	
Engine House, Third Street	17,500 00		
10,100 feet of land	5,500 00		
		23,000 00	
			182,600 00
Overseers of the Poor Department: —			
14 242-1000 acres of land		21,000 00	
City Home buildings		25,000 00	
			46,000 00
Public buildings and lands: —			
City Hall, Massachusetts Avenue	200,000 00		
47,878 feet of land	95,000 00		
		295,000 00	
Amounts carried forward		$295,000 00	$521,100 00

Amounts brought forward . .		$295,000 00	$521,100 00
Public buildings and lands: —			
City Building, Mt. Auburn Street .	60,000 00		
16,153 feet of land	24,000 00		
		84,000 00	
West Side Massachusetts Avenue, Wellesley and Vassar Street: —			
Armory unfinished	150,000 00		
51,564 feet of land	28,400 00		
		178,400 00	
East side Pearl St., Lot 2,635 ft. land		1,000 00	
West side Rockingham St., Lot 1,369 feet		400 00	
Contagious Hospital, 59 Resevoir St., 1 house	3,600 00		
16,624 feet of land	8,300 00		
		11.900 00	
House and stable, 51 New Street .	300 00		
3,980 feet of land	300 00		
		600 00	
House, 55 New Street . . .	500 00		
10,000 feet of land	600 00		
		1,100 00	
House and stable, 47 New Street .	600 00		
10,800 feet of land	600 00		
		1,200 00	
City Building, Green Street, Western Avenue	50,000 00		
13,028 feet of land	10,500 00		
		60,500 00	
Police Station, Fourth Street . .	20,000 00		
4,220 feet of land	2,100 00		
		22,100 00	
			$656,200 00
Street Department: —			
Stables, sheds and scales, Hampshire Street	16,000 00		
72,661 feet of land	30,000 00		
		46,000 00	
City Stables, west side Raymond St.	27,000 00		
272,670 feet of land	27,000 00		
		54,000 00	
			100,000 00
Park Department: —			
Park, Boylston, Mt. Auburn and Winthrop Streets, 11,565 feet of land .		23,000 00	
Park, south side Broadway, 107,181 feet of land		54,000 00	
Park, Hastings Square, 30,000 feet of land		9,000 00	
Park, Dana Square, 33,531 feet of land		12,000 00	
Park, Pleasant Street, 1,372 feet of land		1,000 00	
Park, Pleasant and River Streets, 1,569 feet of land		1,200 00	
Fort Washington, east side Waverley Street, 42,123 feet of land . .		8,000 00	
Mill Pond Property, north side River Street, west side Blackstone Street 41,546 feet		17,000 00	
Amounts carried forward . . .		$125,200 00	$1,277,300 00

Amounts brought forward . .		$125,200 00	$1,277,300 00
Park Department:—			
Lot east side Portland Street, 18,011 ft.		5,500 00	
Lot east side Norfolk Street, 39,600 ft.		12,000 00	
38 lots, Western Avenue, Putnam Avenue, Bancroft, Gilmore and Montague Streets, 119,085 feet .		27,000 00	
Lot, Second Street, 26,357 feet . .		6,000 00	
Lot, west side Reed Street, 1,500 feet		100 00	
Lot, north side Garden St., 8,809 feet		2,200 00	
Lot, north side Garden St , 1,571 feet		600 00	
Lot, south side Van Norden St., 250 feet		100 00	
Lot, Walden Street, 16,365 feet .		1,600 00	
Common, Garden St., Massachusetts Ave. and Waterhouse St , 370,784 ft.		370,000 00	
Park, Massachusetts Ave., Kirkland and Cambridge Sts., 33,357 feet .		66,000 00	
Park, Massachusetts Avenue and Harvard Square, 23,074 feet . .		46,000 00	
Park, Massachusetts Ave. and Holmes Place, 20,956 feet		42,000 00	
Park, Rindge Avenue and Groveland Street, 501,729 feet . . .		100,000 00	
Mt. Auburn Street, 60,508 feet . .		9,000 00	
Ward 1, Charles River Parkway, 359 300 feet		70,000 00	
Buildings, bath-houses and locker-house, Captain's Island . . .		4,000 00	
Lot, south side Main, cor. Deacon, rear, 74,224 feet of land . .		22,300 00	
Ward 3, Cambridge Field, Shelter House	28,000 00		
528,154 feet of land	158,000 00		
		186,000 00	
Building, north side Main and First Street, wharf	2,000 00		
5,605 feet of land . .	5,600 00		
		7,600 00	
Triangular lot, Massachusetts Avenue and Arrow Street, 872 feet . .		1,700 00	
Burial ground, Massachusetts Avenue and Garden Street, 85,858 feet .		not valued	
Triangular lot, Chauncey and Garden Streets, 3,189 feet		3,100 00	
Buildings, north side Bridge . .		500 00	
			1,108,500 00

SCHOOLHOUSES AND LANDS.

Ward One.

Taylor Schoolhouse	$36,000 00		
23,592 feet of land	6,000 00		
		42,000 00	
Gore Primary, Gore Street	36,000 00		
9,900 feet of land	4,000 00		
		40,000 00	
Amounts carried forward . . .		$82,000 00	$2,385,800 00

Amounts brought forward . .		$82,000 00	$2,385,800 00
Ward Two.			
Putnam Grammar, Fourth and Otis Streets	65,000 00		
14,400 feet of land	9,800 00		
		74,800 00	
Thorndike Grammar, Thorndike St. .	30,000 00		
10,027 feet of land	4,000 00		
		34,000 00	
Lassell Primary, Charles Street . .	8,000 00		
10,000 feet of land	3,000 00		
		11,000 00	
Otis Primary, Otis Street . . .	20,000 00		
8,270 feet of land	4,000 00		
		24,000 00	
Ward Three.			
Wellington Training, Columbia Street	50,000 00		
18,870 feet of land	6,600 00		
		56,600 00	
Gannett (old) Primary, Columbia St. .	2,000 00		
8,803 feet of land	2,600 00		
		4,600 00	
Gannet (new) Primary, Jefferson St. .	12,000 00		
15,434 feet of land	4,000 00		
		16,000 00	
Willow St School, west side Willow St. 25,536 feet of land		7,600 00	
Ward Four.			
Allston Grammar, Boardman Street .	30,000 00		
15,193 feet of land	4,600 00		
		34,600 00	
Bridge Primary, Pioneer Street . .	500 00		
4,646 feet of land	1,400 00		
		1,900 00	
Sargent Primary, Broadway . .	3,000 00		
9,995 feet of land	5,000 00		
		8,000 00	
Stearns Primary, Harvard Street .	3,000 00		
10,050 feet of land	5,000 00		
		8,000 00	
Parker Primary, south side Broadway .	15,000 00		
12,319 feet of land	7,000 00		
		22,000 00	
Roberts School, Harvard Street . .	48,000 00		
16,400 feet of land	7,200 00		
		55,200 00	
Lot, west side Elm Street, 24,364 feet .		7,400 00	
Ward Five.			
Merrill School, Fayette Street . .	45,000 00		
37,828 feet of land	19,000 00		
		64,000 00	
Harvard Grammar, Inman Street . .	65,000 00		
20,494 feet of land	12,000 00		
		77,000 00	
Amounts carried forward . . .		$588,700 00	$2,385,800 00

Amounts brought forward . .		$588,700 00	$2,385,800 00
Dana Primary, Centre Street . .	2,000 00		
14,317 feet of land	4,300 00		
		6,300 00	
Felton Primary, Amory Street . .	10,000 00		
15,090 feet of land	4,500 00		
		14,500 00	
Ward Six.			
Boardman Primary, Windsor Street .	13,500 00		
10,018 feet of land	4,000 00		
		17,500 00	
Willard Primary, Lake Street . .	25,000 00		
20,079 feet of land	5,000 00		
		30,000 00	
Morse Schoolhouse, Allston and Brookline Streets	73,000 00		
25,650 feet of land	7,000 00		
		80,000 00	
Ward Seven.			
Tarbell Primary, Grigg Street . .	10,000 00		
19,500 feet of land	4,900 00		
		14,900 00	
Webster Grammar, Upton Street . .	50,000 00		
25,839 feet of land	9,000 00		
		59,000 00	
Ward Eight.			
New Latin School	225,000 00		
English High School, Broadway . .	220,000 00		
154,125 feet of land	92,000 00		
		537,000 00	
Manual Training School, Broadway, Irving and Felton Streets :—			
Land, 81,128 feet	48,000 00		
Building and appliances . . .	56,000 00		
		104,000 00	
Riverside Primary, Putnam Avenue .	5,500 00		
11,199 feet of land	3,500 00		
		9,000 00	
Washington Schoolhouse, Cambridge St.	85,000 00		
16,000 feet of land	12,000 00		
		97,000 00	
Ward Nine.			
Washington Grammar, Brattle Street .	30,000 00		
14,951 feet of land	12,000 00		
		42,000 00	
Corlett Grammar, Holworthy Street .	3,000 00		
10,000 feet of land	2,500 00		
		5,500 00	
Agassiz Primary, Sacramento Street .	18,000 00		
19,689 feet of land	8,000 00		
		26,000 00	
Cushing Primary, Cushing Street .	3,000 00		
14,789 feet of land	2,800 00		
		5,800 00	
Amounts carried forward . . .		$1,637,200 00	$2,385,800 00

Amounts brought forward . .		$1,637,200 00	$2,385,800 00
Dunster Primary, Concord Avenue .	4,000 00		
10,000 feet of land	3,500 00		
		7,500 00	
Holmes Primary, Hilliard Street . .	6,000 00		
11,182 feet of land	6,600 00		
		12,600 00	
Lowell Primary, Lowell Street . .	7,000 00		
12,033 feet of land	3,600 00		
		10,600 00	
Russell School, Larch Street . .	40,000 00		
33,073 feet of land	6,000 00		
		46,000 00	
Ward Ten.			
Peabody Grammar, Linnæan Street :	68,000 00		
21,813 feet of land . . .	10,900 00		
		78,900 00	
Ward Eleven.			
Shepard Grammar, Massachusetts Ave.	20,000 00		
14,755 feet of land	10,000 00		
		30,000 00	
Reed Primary, Reed Street . . .	4.000 00		
12,000 feet of land	1,200 00		
		5,200 00	
Wyman Primary, Rindge Avenue . .	6,000 00		
14,347 feet of land . . .	4,000 00		
		10,000 00	
Sleeper School, Dudley Street . .	29,000 00		
21,284 feet of land	5,000 00		
		34,000 00	
Ellis School, Norris Street . .	50,000 00		
25,700 feet of land . . .	6,000 00		
		56,000 00	
			1,928,000 00
Sewer Department: —			
23,707 feet of land, Pilgrim Street .	5,900 00		
Stables, shed, house and building .	4,100 00		
			10,000 00
Water Works: —			
House, shop and stables, south side Concord Avenue	4,000 00		
27 33-100 acres of land . . .	16,700 00		
		20,700 00	
Land, south side Concord Avenue, 5-8 acre		300 00	
Land, east side Woodlawn Avenue 15,735 feet		800 00	
Lot, rear of Grove Street, 272,800 feet		2,000 00	
Lot, south side Concord Avenue, 99,000 feet		1,000 00	
Land, south side Concord Avenue, 11,220 feet		100 00	
Two lots, south side Concord Avenue, 219,400 feet		2,200 00	
Gate-house lot, Concord Avenue, 43,560 feet		400 00	
Amounts carried forward . . .		$27,500 00	$4,323,800 00

Amounts brought forward . .		$27,500 00	$4,323,800 00
Water Works :—			
Lot, south side Concord Avenue, 24,100 feet		300 00	
Fresh Pond Lane, 11¼ acres of land		11,000 00	
Kingsley Park, Fresh Pond Lane, 309,336 feet		8,000 00	
Lot, rear Fresh Pond Lane, 364,608 ft.		3,500 00	
Lot, Woodlawn Avenue, 107,616 feet		8,000 00	
Lot, Woodlawn Avenue, 26,989 feet .		1,600 00	
Lot, rear Fresh Pond Lane, 239,541 ft.		5,000 00	
Lot, Woodlawn Avenue, 91,040 feet.		2,000 00	
Lot, Holworthy Street, 18,480 feet .		not valued	
Lot, south side Huron Avenue, 22,348 feet		700 00	
Lot, east side Cushing Street, 41,053 feet		800 00	
Lot, Cushing Street, corner Woodlawn Avenue, 95,482 feet . .		2,000 00	
Lot, Woodlawn Avenue, 24,096 feet		1,900 00	
Lot, east side Cushing Street, 639,550 feet		4,000 00	
Two lots, near Fresh Pond and Adams Place, 110,891 feet		1,000 00	
Land, Adams Place, 160,597 feet .		3,200 00	
Lot, Woodlawn Avenue, 25,216 feet of land		1,200 00	
Gravel pit, south side Concord Avenue, 397,417 feet		3,000 00	
190,500 feet of land, Huron Avenue		4,300 00	
Lot, south side Huron Avenue, 91,112 feet		500 00	
Near Concord Avenue, 4 1-2 acres .		5,000 00	
Adams Place, 419,222 feet of land .		10,000 00	
South side Concord Avenue 10,805 feet of land		500 00	
South side Concord Avenue, 32,425 feet of land		700 00	
South side Concord Avenue, 62,000 feet of land		1,200 00	
Lot, Huron Avenue,1 3-4 acres . .		1,000 00	
Concord Avenue, 294,000 feet of land		3,000 00	
Pumping Station, Worthington Street	$50,000 00		
Dwelling house	2,000 00		
19,414 feet of land . . .	18,000 00		
		70,000 00	
Lot, west side Lake View Avenue, 5,294 feet		800 00	
Lot, west side Lake View Avenue, 9,180 feet		1,400 00	
House, east side Lake View Avenue	7,600 00		
9,000 feet of land	1,400 00		
		9,000 00	
East side Lake View Avenue, 2 lots, 2,400 feet		3,600 00	
Vassal Lane, 10,795 feet . . .		1,000 00	
795 Concord Avenue, house, shed and stable	2,000 00		
7 48-100 acres of land . .	4,500 00		
		6,500 00	
Amounts carried forward . . .		$203,200 00	$4,323,800 00

Amounts brought forward . .		$203,200 00	$4,323,800 00
Water Works:—			
Two houses, stable, sheds and building, south side Auburn Street .	5,700 00		
33,847 feet of land	6,600 00		
		12,300 00	
Lot, Fresh Pond Lane, corner Huron Avenue, 46,479 feet . . .		6,900 00	
North side Huron Avenue, Lot 211,835 feet		20,000 00	
East side Lexington Avenue, house and stable	7,300 00		
14,437 feet of land	2,900 00		
		10,200 00	
Lake View Avenue and Vassal Lane, 15,371 feet of land		2,200 00	
			254,800 00
Total			$4,578,600 00

EXEMPTED PROPERTY.

The following is a schedule of property used for religious, charitable, and educational purposes, and exempt from taxation by law, including property owned by the county of Middlesex not including that owned by the City of Cambridge, as shown on the Assessors' Books, November 30, 1903:—

Ward One.

Trinity Methodist Episcopal Church:—		
Church, Cambridge, corner Third Street	$25,000 00	
6,500 feet of land	16,300 00	
		$41,300 00
Massachusetts Baptist Convention, Trustee:—		
Church, Cambridge and Fourth Streets	25,000 00	
6,000 feet of land	11,000 00	
		36,000 00
Church of the Ascension:—		
Church, Third and Thorndike Streets	5,000 00	
4,800 feet of land	4,000 00	
		9,000 00
County of Middlesex:—		
Court House, Third, Otis and Thorndike Streets	208,500 00	
Court House, Second, Otis and Thorndike Streets	180,000 00	
59,572 feet of land	60,000 00	
		448,500 00
Registry of Deeds:—		
Cambridge, Otis, Second and Third Streets	376,000 00	
59,380 feet of land	60,000 00	
Law Library	50,000 00	
		486,000 00
Amount carried forward . .		$1,020,800 00

Amount brought forward . .		$1,020,800 00	
House of Correction, jail and shops, Thorndike, Third, Spring and Second Streets	425,000 00		
59,880 feet of land	30,000 00		
		455,000 00	
St. John's Literary Institute :—			
Halls and stores, Cambridge Street, ⅔ value	20,000 00		
½ of 6,300 feet of land . . .	4,700 00		
Cash assets	5,777 73		
		30,477 73	
			1,506,277 73
Ward Two.			
Second Universalist Society : —			
Church, Otis Street	16,000 00		
5,950 feet of land	3,500 00		
		19,500 00	
Church of the Sacred Heart : —			
Church, Sixth, Otis and Seventh Streets	70,000 00		
15,400 feet of land	6,200 00		
		76,200 00	
Sacred Heart School Association : —			
11,000 feet of land on Seventh Street	3,300 00		
Schoolhouse	150,000 00		
		153,300 00	
			249,000 00
Ward Three.			
Roman Catholic Archbishop of Boston : —			
Building, west side Portland Street .	7,000 00		
3,687 feet of land	1,500 00		
			8,500 00
Ward Four.			
Broadway Baptist Church : —			
Church, west side Boardman Street .	30,000 00		
11,620 feet of land	8,000 00		
		38,000 00	
Cambridgeport Unitarian Society : —			
Church, north side Austin Street .	18,000 00		
13,116 feet of land	8,000 00		
		26,000 00	
Harvard Street Methodist Episcopal Society : —			
Church, north side Harvard Street .	22,000 00		
10,030 feet of land	8,000 00		
		30,000 00	
St Paul's African M. E. Church : —			
Church, north side of Hastings Street	7,500 00		
3,186 feet of land	1,400 00		
		8,900 00	
Hope Congregational Church : —			
Church, north side Harvard Street .	8,000 00		
6,000 feet of land	3,000 00		
		11,000 00	
Amounts carried forward . . .		$113,900 00	$1,763,777 73

Amounts brought forward . .		$113,900 00	$1,763,777 73
Swedish Evangelical Missionary Church of Cambridge: —			
Church, 146 Hampshire Street . .	7,000 00		
3,879 feet of land	1,600 00		
		8,600 00	
St. Stephen's Baptist Church Buildings, 187-189 Broadway	500 00		
2,840 feet of land	1,100 00		
		1,600 00	
St. Mary's Parochial School: —			
Church, west side Norfolk, corner Harvard Street	45,000 00		
Girls' School, south side Harvard Street	60,000 00		
Boys' School, east side Essex Street .	18,000 00		
Sisters' Home, 50 and 52 Essex Street	7,000 00		
49,928 feet of land	20,000 00		
Theatre, east side Norfolk Street .	15,000 00		
13,032 feet of land	6,500 00		
Gymnasium, east side Prospect Street	35,000 00		
11,370 feet of land	5,600 00		
House, 121 Norfolk Street . .	7,500 00		
7,500 feet of land	2,300 00		
		221,900 00	
St. Bartholomew's Church, west side Columbia Street	6,000 00		
Building	500 00		
5,075 feet of land	1,500 00		
		8,000 00	
Congregation Beth Israel of Cambridge: —			
East side Columbia, near Market, Synagogue	15,000 00		
8,784 feet of land . . .	2,600 00		
		17,600 00	
			371,600 00
Ward Five.			
Baptist Church, Trustees of funds of: —			
Chapel, Hampshire Street . . .	3,000 00		
2,500 feet of land	800 00		
		3,800 00	
First Evangelical Congregational Society: —			
Church, west side Prospect Street .	40,000 00		
19,513 feet of land	12,000 00		
		52,000 00	
First Free Baptist Church: —			
Church, north side Harvard Street .	9,000 00		
6,250 feet of land	4,700 00		
		13,700 00	
Donald M. Campbell, Trustee for First Free Baptist Church: —			
Church, north side Hampshire Street	3,000 00		
3,851 feet of land	1,500 00		
		4,500 00	
First Universalist Society of Cambridge: —			
Church, east side Inman Street . .	20,000 00		
15,312 feet of land	11,300 00		
		31,300 00	
Amounts carried forward . . .		$105,300 00	$2,133,377 73

Amounts brought forward .		$105,300 00	$2,135,377 73
First Reformed Presbyterian Church, west side Antrim Street . . .	7,500 00		
5,000 feet of land	2,000 00		
		9,500 00	
First United Presbyterian Church: —			
Church, south side Cambridge Street	6,000 00		
9,173 feet of land	4,600 00		
		10,600 00	
Cambridge Young Women's Christian Association: —			
Personal property		16,174 50	
			141,574 50
Ward Six.			
Immanuel Baptist Church: —			
Church, east side Magazine street .	25,000 00		
11,250 feet of land	3,000 00		
		28,000 00	
First Swedish Baptist Church of Cambridge: —			
Church (unfinished), 77 Columbia St.	7,000 00		
2,765 feet of land	1,200 00		
		8,200 00	
Grace Methodist Episcopal Church: —			
Church, east side Magazine Street .	15,000 00		
7,750 feet of land	5,000 00		
		20,000 00	
Massachusetts Baptist Convention — Union Baptist Church: —			
Church, 874 Main Street . . .	14,500 00		
3,900 feet of land	3,900 00		
		18,400 00	
Baptist Home, 80 Chestnut Street, and 308 Brookline Street, one house and stable	11,500 00		
21,300 feet of land	10,000 00		
Personal property	3,402 59		
		24,902 59	
The Lamson Home, 322 Brookline Street, one house	5,000 00		
5,000 feet of land	2,000 00		
Personal property	9,678 53		
		16,678 53	
Mount Olive Baptist Church and Willard Welsh, for tax: —			
250 feet of land		100 00	
Mount Olive Baptist Church, south side Front Street, Church . . .	18,000 00		
5,000 feet of land	2,500 00		
		20,500 00	
East End Union Mission: —			
Church, west side Burleigh Street on Rogers' land		6,000 00	
Rush African M. E. Zion Church: —			
Church, south side School Street .	6,000 00		
2,760 feet of land	1,100 00		
		7,100 00	
Amounts carried forward		$149,881 12	$2,276,952 23

Amounts brought forward . .		$149,881 12	$2,276,952 23
St. Philip's Church, Episcopal: —			
Church, north side Allston Street .	3,000 00		
4,646 feet of land	1,200 00		
		4,200 00	
Wood Memorial Church, Congregational: —			
Church, west side Columbia, corner Austin Street	30,000 00		
8,933 feet of land	4,700 00		
		34,700 00	
			188,781 12
Ward Seven.			
Cambridge Young Men's Christian Association: —			
Personal property	13,150 25		
New Building, Massachusetts Avenue	115,000 00		
24,145 feet of land	19,000 00		
		147,150 25	
First Baptist Society: —			
Church, Central Square . . .	80,000 00		
21,400 feet of land	20,000 00		
		100,000 00	
First Church of the Evangelical Association of North America: —			
Church, 44 William Street . . .	5,000 00		
6,750 feet of land	2,700 00		
		7,700 00	
Pilgrim Congregational Church: —			
Church, west side Magazine Street .	30,000 00		
12,415 feet of land	9,300 00		
		39,300 00	
Protestant Episcopal Church, Trustees of Donations to: —			
Church, south side Massachusetts Avenue (St. Peter's) . . .	10,000 00		
9,229 feet of land	9,200 00		
		19,200 00	
Prospect Union Association: —			
Personal property	12,145 27		
Building, 744 Massachusetts Avenue	5,800 00		
11,449 feet of land	20,300 00		
		38,245 27	
Stratton, Chas. F., Allen K. Sweet, and Edwin S. Chapin, Trustees: —			
Building, west side Ballard Place .	6,000 00		
4,344 feet of land	1,100 00		
		7,100 00	
			358,695 52
Ward Eight			
Epworth Methodist Episcopal Church: —			
Church, Massachusetts Avenue .	76,000 00		
11,248 feet of land . . .	11,200 00		
		87,200 00	
Old Cambridge Baptist Society: —			
Church, Massachusetts Avenue and Harvard Street	71,000 00		
34,573 feet of land	100,000 00		
		171,000 00	
Amounts carried forward . .		$258,200 00	$2,824,428 87

Amounts brought forward . .		$258,200 00	$2,824,428 87
St. Paul's Roman Catholic Church: —			
Church, Mount Auburn Street . .	30,000 00		
11,216 feet of land	70,000 00		
		100,000 00	
St. Paul's Catholic School Association: —			
Personal property	4,000 00		
School building	59,000 00		
House, Arrow and Mount Auburn Streets	8,000 00		
32,900 feet of land	73,200 00		
		144,200 00	
Holy Ghost Hospital for Incurables: —			
Personal Property	8,430 85		
Building and house, Cambridge Street	56,000 00		
281,436 feet of land (part in ward 5)	72,000 00		
		136,430 85	
The Corporation of the New Church Theological School: —			
New chapel	15,000 00		
Personal property	140,716 00		
Two houses and stable, 42-48 Quincy Street	16,000 00		
81,450 feet of land	81,000 00		
		252,716 00	
President and Fellows of Harvard College: —			
Personal property	11,634,510 54		
Dormitories, chapels, laboratories, museums, lecture rooms and houses, including property in Wards 9 and 10	6,743,900 00		
		18,378,410 54	
Jane Wilson (widow of disabled soldier),			
House, 9 Elmer Street . .	900 00		
1,275 feet of land	300 00		
		1,200 00	
Harvard Lampoon Society: —			
Personal property		3,601 68	
			19,274,759 07
Ward Nine.			
The Buckingham School, Buckingham Street: —			
Schoolhouse	6,000 00		
7,600 feet of land	3,400 00		
Personal property	2,191 27		
		11,591 27	
Christ Church, Episcopal, Garden St.: —			
Church and Parish House . . .	22,000 00		
22,701 feet of land	28,000 00		
		50,000 00	
First Parish Church, Unitarian: —			
Church, Massachusetts Avenue .	57,000 00		
14,831 feet of land	43,000 00		
		100,000 00	
Cambridge Social Union: —			
Personal property	2,000 00		
House, No. 42 Brattle Street . .	5,000 00		
7,030 feet of land	10,500 00		
⅓ value of hall	4,000 00		
⅓ value of 10,000 feet of land . .	5,000 00		
		26,500 00	
Amounts carried forward . .		$188,091 27	$22,099,187 94

Amounts brought forward . .		$188,091 27	$22,099,187 94
Shephard Congregational Society: —			
Church, Garden Street . . .	110,000 00		
34,353 feet of land	34,000 00		
		144,000 00	
St. Peter's Roman Catholic Church: —			
Church, Concord Avenue . . .	45,000 00		
33,700 feet of land	11,000 00		
		56,000 00	
St. Peter's Parish Hall Corporation: —			
Stores and hall, 70 Concord Avenue .	39,500 00		
11,850 feet	3,500 00		
		43,000 00	
Cambridge Hospital: —			
Personal property	262,383 32		
Buildings, Mount Auburn Street .	94,000 00		
Land	143,000 00		
		499,383 32	
Cambridge Home for Aged People: —			
Personal property	93,347 70		
Building, Mount Auburn Street .	60,000 00		
42,975 feet of land	20,000 00		
		173,347 70	
Longfellow Memorial Association: —			
Personal property	16,928 92		
Park, south side Brattle Street, 93,618 feet	56,000 00		
		72,928 92	
Episcopal Theological School, Trustees of: —			
Personal property	145,343 86		
Chapel, seminary and dormitories, Brattle and Mason Streets, and Hastings Avenue	356,700 00		
		502,043 86	
Avon Home, Mount Auburn Street: —			
Building	22,000 00		
69,470 feet of land	28,000 00		
Personal property	123,785 48		
		173,785 48	
Radcliffe College: —			
Personal property	308,612 00		
Five houses, laboratory, schoolhouse and gymnasiums, Garden, Brattle, Mason and James Streets, 163,296 feet of land, including Ward 10 property	352,200 00		
		660,812 00	
Metropolitan Park, 29 acres and 397,465 feet		108,800 00	
			2,622,192 55
Ward Ten.			
North Avenue Congregational Society: —			
Church, Massachusetts Avenue . .	32,000 00		
13,430 feet of land	11,600 00		
		43,600 00	
Amounts carried forward . . .		$43,600 00	$24,721,380 49

Amounts brought forward . .		$43,600 00	$24,721,380 49
Fitchburg Railroad Co.: —			
371 Concord Avenue, 1 house . .		500 00	
			44,100 00
Ward Eleven.			
Catholic Cemetery, Rindge Avenue, 304,014 feet of land		30,000 00	
Third Universal Society: —			
Church, Massachusetts Avenue .	30,000 00		
14,880 feet of land	14,800 00		
		44,800 00	
Trustees of Donations to the Protestant Episcopal Church: —			
Church and Chapel, Massachusetts Avenue and Beech Street, . .	75,000 00		
21,207 feet of land (cemetery lot included)	21,200 00		
		96,200 00	
Abbott, Edward, Trustee for, west side Beech Street: —			
Lot, 7,965 feet of land . . .		3,900 00	
North Avenue Baptist Society: —			
Church, Massachusetts Avenue . .	55,000 00		
38,525 feet of land	21,300 00		
		76,300 00	
Roman Catholic Archbishop of Boston: —			
Schoolhouse, south side Rindge Ave .	40,000 00		
39,754 feet of land	8,000 00		
		48,000 00	
Lot, east side Middlesex Street, 1,939 feet		400 00	
Lot, south side Wilson Avenue, 6,214 feet		1,200 00	
Lot, end Wilson Avenue, 2,037 feet .		400 00	
Marist Fathers of Boston, French Roman Catholic Church: —			
Personal property	1,500 00		
Church, north side Harvey Street .	18,000 00		
14,645 feet of land	3,000 00		
		22,500 00	
Weymouth, Harrison G. O., (disabled soldier): —			
Orchard Street, 4,800 feet of land .		2,200 00	
			325,900 00
Total			$25,091,380 49

SCHEDULE OF CITY PROPERTY

AS FURNISHED BY

EXECUTIVE BOARDS AND HEADS OF DEPARTMENTS

IN

1903

PUBLIC PROPERTY DEPARTMENT.

CITY BUILDINGS.

	Feet of Land.	Purchase of Land.	Erection of Building.	Valuation of Land.	Valuation of Building.	Valuation of Furniture.
City Hall.....	47,878	1888	1888	$72,000	$200,000	$29,800
Brattle Sq. Bldg.	16,153	1873	1874	16,000	60,000	2,500
Central Sq. Bldg	13,028	1872	1873	10,500	50,000	2,436
Station 3	4,220	1862	1870	2,100	20,000	800
Station 4	6,316	1872	1873	3,700	5,300	300
				$104,300	$335,300	$35,836

Voting booth, corner Cambridge and Hampshire Sts.	$500 00	
Portable voting booth, junction Sherman and Garden Sts.	200 00	
Voting compartments and fixtures (380) . . .	1,900 00	
		$2,600 00

OLD MATERIAL IN STORE HOUSE.

Old school desks	$1,000 00	
1 tubular boiler and fittings	300 00	
1 stove (large)	12 00	
Plumbers' material	100 00	
Old iron	15 00	
Old doors	10 00	
Davidson steam pump (at R. M. T. S.) . . .	100 00	
		$1,537 00

RIFLE RANGE.

Buildings and equipment	$1,000 00

POLICE DEPARTMENT.

PERSONAL PROPERTY.

210	badges . . .	$150 00	1	police van . . .	300 00
120	belts . . .	137 50	3	patrol wagons . .	1,000 00
120	short billies . . .	60 00	3	police signal systems .	12,000 00
6	bedsteads . . .	36 00	115	revolvers . .	480 00
5	book cases . . .	40 00		Ropes and stakes .	6 00
	Bedding & blankets .	50 00	3	robes, carriage . .	15 00
1	buggy	150 00	1	rogues' gallery . .	150 00
5	clocks	30 00	2	safes	200 00
2	bureaus . . .	3 00	8	spittoons . . .	2 00
75	chairs	95 00	1	sleigh	25 00
1	carpet	8 00	1	stove	8 00
	Letter press and stand	10 00	2	straps and weight .	1 00
200	copies police rules .	40 00	1	telephone line . .	300 00
15	desks	450 00	3	thermometers . .	2 00
1	easy chair "Matron's".	10 00	6	tables	12 00
5	horses	700 00	40	tin dippers . . .	4 00
6	harneses . . .	180 00	1	typewritter and desk .	140 00
4	halters . . .	1 00	2	umbrella stands . .	2 00
1	hat rack . . .	3 00	1	police van, old, . .	25 00
10	ink stands . . .	5 00	8	waste baskets . .	3 50
50	lanterns . . .	37 50	4	water coolers . .	30 00
8	mirrors . . .	16 00		Operating table and chair	37 50
3	maps	15 00	3	medicine cabinets .	75 00
10	rugs	30 00	2	wardrobes . . .	15 00
12	handcuffs, pairs . .	36 00	2	wagon jacks . .	2 00
					$17,128 00

FIRE DEPARTMENT.

REAL ESTATE.

Buildings.	Location.	Land Purchased	Erection of Building.	Land. Sq. Feet.	Assessed Land.	Value Building.
Engine House No. 1	108 Mt. Auburn St.	1874	1875	In City	building	
Ladder House No. 1	Eliot Square.....		1876			
Engine House No. 2	384-394 Mass. Av.	Owned by City.	1893	10,000	$8,000	$26,000
Ladder House No. 3						
Engine House No. 3	35 Third St.....	1895	1895	10,100	5,500	17,500
Engine House No. 4	2029 Mass. Av.....	1896	1896	9,532	6,000	23,000
Engine House No. 5	Inman Square.....	1874	1874	6,000	5 000	10,000
Engine House No. 6	176 River St.....	1890	1890-1891	4,994	2,500	12,000
Engine House No. 7	350 Main St.....	Owned by City.	1894-1895	9,400	7,300	12,000
Chemical Engine House No. 1.....	5 Western Av.....	1872	1873-1874	In City	building	
Chemical Engine House No. 2.....	167 Lexington Av..	1893	1894	15,262	4,000	16,000
Ladder House No. 2	276 Portland St.....	Owned by City.	1887	11,931	3,000	12,000
	Junction of Sherman and Garden St.	1903	.....	10,380	2,500	.....
					$43,800	$128,500

PERSONAL PROPERTY.

ESTIMATED VALUE OF

Apparatus, hose, etc.	$61,000 00	
Bedding and furniture	3,700 00	
Hardware and tools	700 00	
Horses and harnesses	10,200 00	
Miscellaneous	1,000 00	
		$76,600 00

FIRE ALARM AND POLICE TELEGRAPH

ELECTRICAL DEPARTMENT, WIRE ACCOUNT.

EQUIPMENT.

Fire Alarm apparatus and machinery	$12,000 00	
Fire Alarm Circuits	2,200 00	
101 Fire Alarm boxes	6,060 00	
Fire Alarm reserve apparatus	1,050 00	
Police Signal apparatus and machinery	3 000 00	
Police Signal circuits	2,500 00	
80 Police boxes	10,000 00	
Police Signal reserve apparatus	150 00	
Testing instruments	450 00	
Tools	500 00	
Furnishings at Fire Alarm Headquarters	400 00	
Stock on hand	550 00	
Old and disused appartus	650 00	
Horses, wagons and harnesses	450 00	
Building in Belmont school yard	400 00	
		$40,360 00

HEALTH DEPARTMENT.

REAL ESTATE.

Number.	Street.	Houses.	Sheds.	Value of Buildings.	Value of Land.	Total Value.	Area sq. feet.	Remarks.
59	Reservoir	1	....	$3,600	$8,300	$11,900	16,624	Taken by Board of Health, Nov. 2, 1899
47	New.....	1	1	600	600	1,200	10,800	" " " " " Nov. 21, 1901
51	New.....	2	3	800	900	1,700	13,980	" " " " " Oct. 25, 1901
								" " " " " Mch 24, 1902
67	New.....	1	2	1,000	300	1,300	6,140	" " " " " Feb. 8, and Mch. 24, 1902
				$6,000	$10,100	$16,100		

PERSONAL PROPERTY.

Laboratory furnishings		$268 00	
Office furniture: --			
3 desks	$115 00		
1 revolving book case . . .	10 00		
4 cabinets	19 00		
12 letter files	6 00		
		150 00	
Dictionary		5 00	
Stationery and sundries . . .		20 00	
Typewriter		100 00	
3 atlases		50 00	
Horse		165 00	
1 ambulance		585 00	
1 Beverly wagon		175 00	
1 van		100 00	
3 sets of harness		125 00	
Blankets and horse covers . . .		20 00	
16 disinfecting lamps		100 00	
			$1,863 00
At Diphtheria Hospital: —			
Medical and surgical supplies . .		$203 57	
Furnishings and general supplies .		1,153 18	
			1,356 75
At Small-pox Hospital: —			
Furnishings, clothing and general supplies			1,517 99
Total			$4,737 74

INSPECTOR OF MILK AND VINEGAR DEPARTMENT.

PERSONAL PROPERTY.

12 platinum dishes	$175 00	
1 balance	15 00	
1 drying oven	6 00	
1 Babcock tester	3 00	
Chemicals, glassware and chemical apparatus	15 00	
Water bath	22 00	
Babcock apparatus	47 00	
Polariscope	55 00	
Analytical balance and weights	60 00	
Muffle furnace	14 00	
Pipettes, glass bottles and flasks	88 00	
Butter refractor, etc.	95 00	
Harvard record boxes	7 00	
1 collecting bag for milk samples	7 00	
Total		$609 00

CAMBRIDGE CEMETERY.

37.64 acres of land	$60,000 00	
One house	2,500 00	
Personal property	2,210 49	
Total		$64,710 49

SEALER OF WEIGHTS AND MEASURES DEPARTMENT.

INVENTORY OF PROPERTY.

STANDARDS FURNISHED BY COMMONWEALTH.

1 balance, 5 grains to 100 lbs.
1 set (5) avoirdupois weights, 50, 25, 20, 10, 5 lbs.
1 set (11) avoirdupois weights, 4 lbs. to 1-16 oz.
1 kilogramme in case.
1 steel meter in case.
1 brass yard measure.
1 set (5) iron dry measures, ½ bushel to 1 quart.
1 set (6) iron liquid measures, 1 gallon to 1 gill.

Office furniture	$200 00
1 bay horse	100 00
1 express wagon	100 00
1 light wagon	75 00
1 pung	23 00
2 harnesses	70 00
1 plush robe	1 00
1 stable blanket	2 00
1 rain blanket	2 00
1 woolen blanket	5 00
1 halter	75
1 hitch weight	50
1 wagon scale at Lechmere Square	400 00
1 wagon scale at Union Square	350 00
1 platform scale, 1-2 lb. to 2,500 lbs.	75 00

1 folding platform scale, 1-4 lb. to 600 lbs.	$30 00	
1 spring scale, 1 lb. to 125 lbs.	1 00	
1 balance, 1-10 milligramme to 500 grammes	35 00	
1 balance, 1-50 grain to 8 oz.	15 00	
1 sealers' balance, 1 grain to 8 lbs.	50 00	
2 sealers' trip scales (not used)	5 00	
2 sets avoirdupois weights (19), 4 lbs to 1-8 oz.	10 00	
1 set troy weights (9), 16 oz. to 1-8 oz.	3 00	
1 set metric weights (13), 1 kilo to 1 gramme	5 00	
5 boxes miscellaneous weights (not standardized)	10 00	
1 set iron weights (3), 25, 10, 5 lbs.	5 00	
40 50-lb. weights	100 00	
3 glass graduates	1 00	
1 set copper dry measures (5), 1-2 bushel to 1 quart	45 00	
1 set brass dry measures (3), 1 quart to 1-2 pint	5 00	
2 sets copper liquid measures (14), 1 gallon to 1 gill	30 00	
1 steel surveyor's tape	10 00	
1 iron truck	5 00	
Miscellaneous tools	50 00	
1 branding furnace	5 00	
1 set brands	3 00	
		$1,827 25

CITY HOME ESTATE.

Thirty-two (32) acres land bought Aug. 7, 1849.

Present City Home completed and placed under the care of the Overseers of the Poor, April 3, 1851.

Land cost	$12,000 00
City Home cost	32,970 69
Fences, furniture, etc., cost	3,000 00
Total	$47,970 69

Hospital cottage on City Home grounds built in 1886, moved and rebuilt in 1901, cost	$2,800 00
Two-story brick building erected 1888 cost	5,600 00

Land situated in Cambridge	14 242-1,000 acres
" " " Somerville	7 954-1,000 "
" " " Arlington	100-1,000 "

Lands (salable) on plan of April 10, 1884:—

30 lots of 5,000 feet each (in Somerville)	3 443-1,000 "
Total acres of land	25 739-1,000 "

About seven acres of City Home land lying south of Broadway in West Somerville have been sold for house lots. The remaining lots (30) contain 150,000 square feet, and have been held at a valuation of four cents per square foot, but at the present time are assessed for about ten cents.

The valuation of the City Home real estate by the assessors is:—

Land in Cambridge	$21,000 00	
Buildings in Cambridge	25,000 00	
Land in Somerville	32,200 00	
Buildings in Somerville	3,200 00	
Land in Arlington	300 00	
Total		$81,700 00

INVENTORY

of personal property at City Home, December 1, 1903: —

Book-keeping account books, stationery, etc.	$100 00	
Drugs, medicines and hospital supplies	300 00	
Dry goods, clothing, bedding etc.	3,800 00	
Farm and stable: 3 horses, 23 pigs, 150 fowls, tools, 5 harnesses, 5 wagons, fertilizers, produce, 3 carriages, 2 sleighs, etc.	4,400 00	
Fuel	1,500 00	
House supplies, furniture, carpets, etc.	2,500 00	
Ledge: steam boiler, steam drill and tools	1,000 00	
Offal Dept.: 20 wagons, 20 pungs, 20 horses, 20 harnesses, etc.	6,000 00	
Outside aid: 2 delivery wagons, groceries, etc.	340 00	
Provisions: groceries and spices	200 00	
		$20,140 00

INVENTORY

of personal property at Overseer's office, Central Square Building, December 1, 1903: —

Office furniture, filing cases, book-cases, typewriter, books, stationery, etc.	$620 00	
City physician's office: instruments, microscope, operating table, furniture, medicine, etc.	425 00	
Coal shed on Norfolk Street	400 00	
Sixty tons stove coal	375 00	
		$1,820 00

ENGINEERING DEPARTMENT.

PERSONAL PROPERTY.

Drafting materials and stationery	$180 00	
Drawing instruments and utensils	220 00	
Furniture — Office, drafting room and safe	344 00	
Motor — Electric	20 00	
Photographic outfit	94 00	
Surveying instruments — 2 levels and 4 transits	400 00	
Surveying tools, etc.	195 00	
Testing machines and accessories	166 00	
Tools — Miscellaneous, small	22 00	
Typewriter	95 00	
		$1,736 00

In addition to the above, there are on file in this office 8,427 plans, also many notes and records of inestimable value. I have, however, estimated that to replace such of these as could be reproduced, would cost the city $125,000.00.

STREET DEPARTMENT.

REAL ESTATE.

Location.	Buildings.	Erection of Buildings.	Purchase of Land.	Feet or Acres of Land.	Valuation of Land.	Valuation of Buildings.
Raymond St....	City Yard and Stable, stable, sheds, scales, etc.	1897	1896	272,670	$27,000	$27,000
Hampshire St....	City Stable, sheds and scales, including old police station.....	1885	....	72,661	30,000	16,000
E. S. Norfolk St..	Yard and pound.....	....	....	39,600	12,000	....
River St.....	Yard and wharf.....	....	....	....	....	17,000
Acton, Mass.....	Land, gravel bank.....	....	1896	41,546	*7,000	....
					$76,000	$60,000
	Total valuation of Real Estate.....					$136,000

* Assessed valuation abont $1,000.00.

PERSONAL PROPERTY.

69 horses	$6,000 00	
49 watering carts	12,000 00	
54 single and double carts	4,700 00	
80 sets harness	2,100 00	
Miscellaneous buggies, sleighs, pungs, plows, wagons, etc.	2,200 00	
4 bicycles	125 00	
4 steam rollers	5,000 00	
1 two-horse section roller	125 00	
Miscellaneous tools, road machines, pick-up sweepers, scrapers, brooms, etc.	6,000 00	
Stone crushing plant, Raymond Street	5,500 00	
Stone crushing plant, Hampshire Street	6,000 00	
8 Shadbolt ash carts.	2,500 00	
2 Watson carts	350 00	
Miscellaneous lumber, iron, cements, oils, etc.	1,500 00	
632.3 feet straight edgestone	309 83	
350.1 feet circle edgestone	245 07	
25,000 granite paving blocks	1,675 00	
270 square yards gutter stone	202 50	
8,500 sidewalk bricks	99 45	
50 tons crushed stone	60 00	
1,400 tons field stone	1,050 00	
2½ tons coal	10 62	
13,000 vitrified brick	325 00	
		$58,977 47

SEWER DEPARTMENT.

REAL ESTATE.

Location.	Buildings.	Erection of Buildings.	Purchase of Land.	Feet of Land.	Assessors' Valuation of Land.	Assessors' Valuation of Buildings.	Total.
Pilgrim Street...	Stable	1887					
" "	Sheds.....	1881 1884					
" "	House....	1892 1890	1868	23,707	$5,900 00	$4,100 00	$10,000 00

SEWERS.

123.4 miles of sewers, which have cost to construct $1,703,752 55

PERSONAL PROPERTY.

1 buggy	$150 00	
4 carts, steel, sanitary	400 00	
1 cart, sanitary	50 00	
2 carts, tip	175 00	
10 clocks, register	200 00	
1 dray	150 00	
1 derrick, 4-leg	25 00	
1 engine, hoisting	300 00	
Furniture, miscellaneous	143 00	
9 harnesses, sets of, and horse clothing	150 00	
5 horses	600 00	
2 patterns	80 00	
Pile driver and hammers	100 00	
4 pumps—1 steam, 3 hand	125 00	
Rain guages, standard and self-recording	100 00	
1 roller, horse, street	75 00	
Rubber goods, miscellaneous	220 00	
1 sewer cleaning machine, "Healy"	750 00	
3 sleighs	200 00	
Stock on hand—brick, castings, lumber and pipe	1,947 00	
Tools and implements, miscellaneous	1,330 00	
Tool-houses, etc.	260 00	
1 Trench machine, "Carson"	1,000 00	
1 wagon, canopy top	100 00	
2 wagons	125 00	
		$8,705 00
Value of land and buildings		10,000 00
Cost of sewers constructed		1,703,752 55
Total of real and personal estate		$1,722,457 55

ELECTRICAL DEPARTMENT.

STREET LIGHTING.

Equipment.

287 lamp posts	$2,870 00	
Office furniture	275 00	
Stock on hand (old and disused)	400 00	
Horse, carriage and harness	370 00	
		$3,915 00

BRIDGE DEPARTMENT.

REAL ESTATE.

Bridge.	Property.	Value.	Total.
Craigie	Drawtender's house	$1,000 00	
"	Engine house and engine	500 00	
"	Two small houses on bridge	400 00	
Harvard	Drawtender's office	600 00	
Prison Point	Drawtender's house	1,000 00	
Brookline Street	Drawtender's office	500 00	
River Street	Drawtender's office	150 00	
North Harvard Street.	Drawtender's office	75 00	
Western Avenue	Drawtender's office	50 00	$4,275 00

PERSONAL PROPERTY.

Canal Bridge	$105 28	
Harvard Bridge	201 89	
Prison Point Bridge	42 10	
West Boston Bridge	97 02	
Brookline Street Bridge	9 75	
River Street Bridge	17 50	
North Harvard Bridge	38 99	
Western Avenue Bridge	5 60	
		$518 13

WATER WORKS.

Street.	Buildings.	Date of Purchase.	Feet or Acres of Land.	Valuation of Land.	Valuation of Buildings.	Valuation of personal.
Adams Place		1890	160,597	$1,400		
"		1890	419,222	10,000		
S. S. Auburn	1 house & sheds.				$4,000	
" "	Stable (brick)				7,000	
" "	Shop (brick)	1868	(Lot 12) 33,847	6,600	5,500	$14,270
" Concord ave	1 house (brick)					
" "	Shop and stable.		27.33 a.	16,700	4,000	325
" "		1890	⅝ a. (gravel pit)	300		
" "		1856	397,417	3,000		
" "		1886	99,000	1,000		
" " nr. Adams street		1891	10,805	500		
S. S. Concord ave		1886	11,220	100		
" " cor. Huron ave.		1882	32,425	700		
S. S. Concord ave		1890	219,400	2,200		
" "		1890	62,000 (G. H. lot)	1,200		
Concord ave		1890	43,560	400		
Near Concord ave. and Railroad		1892	4½ a.	5,000		
S. S. Concord ave		1890	24,100	300		
" "		1889	294,000	3,000		
" " between Fresh Pond and Watertown Branch of F. R. R.		1886	(Tudor Park) 57,312	1,500		
E. S. Cushing		1886	41,053	800		
" " cor. Woodlawn ave., north end		1888	95,482	2,000		
Cushing, corner Woodlawn ave.		1888	639,550	4,000		
E. S. Cushing, cor. Woodlawn ave., south end.		1888	(Tri'ngular lot on St)	No value		
Fresh Pond Lane			211,835	20,000		
" " "		1890	11¼ a.	11,000		
R. Fresh Pond Lane		1886	364,608	3,500		
" " "		1886	239,541	5,000		
Near Fresh Pond Lane and Adams Place		1886	110,891	1,000		
Fresh Pond Lane, cor. Huron ave.		1894	46,479	6,900		
Rear of Grove		1886	272,800	2,000		
" " "		1888	150,000	1,500		
" " "		1890	519,000	6,000		
Holworthy		1886	for ext'n St 18,480	No value		
S. S. Huron avenue (part lot)		1886	22,348	700		(in G.H.) 5
S. S. Huron avenue (part lot)		1888	91,112	500		
Huron ave.		1890	190,500	4,300		
" "		1890	1¾ a.	1,000		
Kingsley Park		1867 1886	309,336	8,000		
Lake View ave., cor. Vassal lane			(Lot 34) 15,371	2,000		
E. S. Lake View avenue			(Lot 32) 12,000	1,200		
E. S. Lake View avenue	House		(Lot 31) 9,000	1,000	7,000	
W. S. Lake View avenue			(Lot 37 9,180	1,000		

WATER WORKS — Continued.

Street.	Buildings.	Date of Purchase.	Feet or Acres of Land.	Valuation of Land.	Valuation of Buildings.	Valuation of personal
E. S. Lake View avenue			(Lot 31) 12,000	1,200		
E. S. Lexington ave., cor. Worthington	House and stable		(Lot 63) 14,437	2,900	7,300	
Massachusetts ave.	In City Hall					offi'e furn $1,000
Vassal Lane			(Lot 33) 10,795	1,000		
E. S. Woodlawn ave.		1886	91,040	2,000		
Woodlawn avenue		1886	24,096	1,900		
E. S. Woodlawn ave.		1886	107 619	8,000		
N. S. Woodlawn ave.		1887	25,216	1,200		
E. S. Woodlawn ave.		1886	15,735	800		
Woodlawn avenue		1886	26,989	1,600		
E. S. Woodlawn ave.						
	Woodlawn ave. 9,910					
	29,471					
	22,100					
	4,000					
	7,000					
	7,333					
	14,328					
	12,280					
	106,422					
	Cushing 15,611					
	11,303					
	26,914		133,336	13,700		
Worthington	Pumping Station and machinery.	1856			50,000	pumping pl't, tools
	Dwelling-house.	1873	90,414	18,000	2,000	$200,000
E. S. Worthington, cor. Lake View avenue		1856 1883	(Lot 36) 5,294	800		
Nursery stock at Fresh Pond						5,000
Total				$190,400	$86,800	$220,600

REAL ESTATE AND PERSONAL PROPERTY AT HOBBS BROOK.

Value of land	$240,563 30	
Gate houses	6,710 40	
Keeper's house and stable	5,000 00	
Dams	132,297 73	
Personal property	63 00	
		$384,634 43

REAL ESTATE AND PERSONAL PROPERTY AT PAYSON PARK.

Value of land	$45,235 17	
Tool house	300 00	
Reservoir	287,000 00	
Personal property	30 00	
		$332,565 17

REAL ESTATE AND PERSONAL PROPERTY AT STONY BROOK.

Value of land	$138,080 73	
Keeper's house and stable	3,000 00	
Dam	289,000 00	
Personal property	396,000 00	
		$430,476 73

VALUATION OF

Main pipe	$643,590 00	
Supplies	220,280 00	
Boxes	13,313 29	
Fountains	5,600 00	
Gates	38,050 00	
Hydrants	45,225 00	
Ice water fountains	1,900 00	
Meters	34,101 33	
Standpipes	1,475 00	
Payson Park line	198,000 00	
Stony Brook line	237,600 00	
		$1,439,134 62

PUBLIC PROPERTY DEPARTMENT.

SCHOOLHOUSES.

	Feet of Land.	Purchase of Land.	Erection of Building.	Valuation of Land.	Valuation of Building.	Valuation of Furniture.
Agassiz	19,689	1874	1875	$8,000	$20,000	$1,215
Boardman	10,018	1866	1868	4,000	13,000	1,290
Bridge	4,646	1836	1836	1,400	500	.....
Corlett	10,000	1880	1880 Purchased.	1,200	3,000	195
Cushing	14,787	1880	1880 Purchased.	1,500	3,000	136
Dana	14,317	1847	1848	4,300	2,000	.....
Dunster	10,000	1857	1871	3,000	3,000	261
Ellis	25,700	1897	1898	6,000	48,000	2,993
Felton	15,090	1847	1848	4,500	6,000	200
Gannett	15,434	1876	1886	3,000	12,000	430
Gannett (old)	.....	1864	1865	2,600	2,000	395
Wellington	27,673	1875	1884	5,700	50,000	2,240
Gore	9,900	1871	1871	4,000	50,000	825
Harvard	20,494	1870	1871-1899	12,000	65,000	3,769
High	74,366	.....	1891	40,900	220,000	9,220
Holmes	11,182	1870	1870	5,000	5,500	275
Kelley	25,230	1900	1902	9,600	60,900	4,380
Lassell	10,000	1880	1880	3,000	8,000	272
Latin	79,579	1894	1897	43,800	225,000	27,150
Lowell	12,033	1883	1883	3,600	5,500	402
Merrill	37,828	1864	1864	19,000	45,000	1,425
Morse	25,650	1889	1890	7,000	73,000	2,040
Otis	8,270	1857	1859	4,000	20,000	930
Parker	12,319	.....	1893	7,000	15,000	710
Peabody	21,813	1887	1888-1898	9,800	68,000	3,340
Putnam	14,400	1896	1889	9,800	64,500	2,550
Reed	12,000	1868	1868	1,200	4,000	310
Rindge, M T	81,128	.....	1887	44,000	56,000	8,000
Riverside	11,198	1868	1868	3,000	5,000	330
Roberts	16,400	1898	1898	12,000	48,000	3,003
Russell	33,073	1895	1896	6,000	40,000	2,440
Sargent	9,995	1838	1838	5,000	3,000	255
Shepard	14,755	1855	1856-1873	11,000	26,000	1,047
Sleeper	21,284	1894	1894	5,000	24,000	1,190
Stearns	10,050	1812	1841-1843	5,000	3,000	322
Tarbell	19,500	1878	1882	4,900	7,000	355
Taylor	23,592	1894	1895	6,000	36,000	1,720
Thorndike	10,027	1860	1860-1875	4,000	30,000	1,676
Washington	16,000	1900	1901	12,800	80,000	3,550
Webster	25,839	1866	1873-1885	9,000	50,000	3,350
Willard	20,079	1869	1870	7,000	25,000	1,350
Wyman	14,347	1871	1871-1886	4,500	5,000	555
Elm Street	18,360	1902	1903	12,000	44,000	.....
				$376,100	$1,573,900	$96,396

SCHOOL DEPARTMENT.

PERSONAL PROPERTY.

Text books	$21,454 35	
Desks, reference and library books	1,427 76	
Apparatus and furnishings	22,884 40	
Stock on hand July 1, 1903	5,675 79	
		$51,442 30

PUBLIC LIBRARY.

REAL AND PERSONAL ESTATE.

141,666 feet of land, as per assessors' books	$85,000 00	
Library building, as per assessors' books	145,000 00	
		$230,000 00
Estimated valuation of books in the library	62,000 00	
Estimated valuation of interior furnishings	9,000 00	
Estimated valuation of books in the East Cambridge Branch Library	1,200 00	
Estimated valuation of furnishings in the East Cambridge Branch Library	300 00	
		$302,500 00

The lot (about 590 x 240 feet) occupied by the library building is bounded by Broadway, Irving, Cambridge and Trowbridge Streets. The land and building were presented to the City of Cambridge by Mr. Frederick H. Rindge, in June, 1889, on the completion of the building, which was begun in the autumn of 1887. In 1894 a wing was added to the building at a cost to the City of $20,000, and in 1902 an addition to the stack was made at an expense of about $30,000.

The Trustees of the Library also hold the following funds, invested in the bonds of the City of Cambridge: —

Fay fund, school-house loan bond, No. 254, due 1st August, 1918, at 3½ per cent.		$1,000 00
Cummings fund, water loan bond, No. 38, due 1st July, 1909, 4 per cent.		2,000 00
Citizens' subscription fund, invested as follows: —		
Sewer loan bond, No. 7, due 1st May, 1910, 4 per cent.	$5,000 00	
Sewer loan bond, No. 47, due 1st October, 1925, 4 per cent.	500 00	
		5,500 00
William E. Saunders fund, invested as follows: —		
Building loan bond, No. 544, due 1st April, 1923, 3½ per cent.	3,000 00	
Street loan bond, No. 545, due 1st April, 1923, 3½ per cent.	4,000 00	
Deposited in Cambridgeport Savings Bank	350 39	
		7,350 39
		$15,850 39

PARK DEPARTMENT.

LAND.

	SQUARE FEET.	VALUE.
River Parkway: —		
Section A	395,174	$395,174 00
" B	859,000	1,718,000 00
" C	583,082	145,770 50
" D	1,668,709	188,045 21
" E	77,101	61,045 72
" F	605,084	117,537 65
" G	699,948	419,968 80
" H	62,858	13,135 80
Cambridge Field	528,154	206,200 13
Rindge Field and Nursery	501,729	150,518 70
East Cambridge Embankment	363,825	132,730 28
Commons and Squares: —		
Garden St., Massachusetts Ave. and Waterhouse St.	370,785	370,000 00
Massachusetts Ave., Kirkland and Cambridge Sts.	33,357	66,000 00
Massachusetts Avenue and Peabody Street	23,074	46,000 00
Massachusetts Avenue and Holmes Place	20,956	42,000 00
Massachusetts Avenue and Waterhouse Street	13,181	13 000 00
Washington Elm	886	886 00
Broadway Common	107,181	54,000 00
Fort Washington	42,123	8,000 00
Dana Square	33,531	12,000 00
Hastings Square	30,000	9,000 00
Winthrop Square (approx.)	11,611	23,000 00
Arsenal Square	3,189	3,100 00
Pleasant and River Streets	1,569	1,200 00
Pleasant Street and Western Avenue	1,372	1,000 00
Massachusetts Avenue and Arrow Street	872	1,700 00
Total		$4,199,012 29
Buildings		63,000 00
Equipment		2,850 00

REPORT OF THE COMMITTEE ON ACCOUNTS

CAMBRIDGE, December, 1903.

To the Honorable, the City Council of the City of Cambridge:—

In conformity with the requirements of the City Ordinances, the Committee on Accounts for the year 1903, submits its annual report for the fiscal year ending November 30.

The Committee has met every month for the examination of the books and accounts of the Auditing Department. The work of this department has greatly increased during the past year and it gives us much pleasure to reiterate the words used by Mr. Harvey S. Chase, Expert Accountant, in his report to the Mayor and City Council on March 28, 1903. "The Books and Accounts have been kept in most thorough and excellent manner, and in such a way as to cover the most minute details of the financial transactions of every department." The Annual Report of the City Auditor for 1903 like that of 1902 is arranged upon the Uniform Schedules adopted by the National Municipal League and is a very great improvement over the reports for previous years.

MICHAEL H. FLYNN,
JOHN F. DOHERTY,
JAMES F. QUINN,
GEORGE B. CASWELL,
THOMAS P. O'NEIL.

Committee on Accounts.

REPORT OF THE TRUSTEES OF THE CAMBRIDGE PUBLIC LIBRARY

To the Honorable, the City Council: —

The trustees of the Cambridge Public Library respectfully submit their forty-sixth annual report, covering the year ending November 30, 1903.

The details of the year's work are faithfully presented in the librarian's report and its appendices, and suggest strongly the growing importance and usefulness of the library. The trustees, however, desire to emphasize the recommendations therein contained, and to offer such other suggestions as may in their judgment be conducive to the growth and prosperity of the library.

At the outset they desire to call your attention to the necessity of repainting the old stack and resetting the steps at the main entrance. These repairs may be made now at a moderate cost to the city.

It is apparent to all that the value of a library in a community is dependent first upon the number and character of its books, and, in the second place, upon the readiness and ease with which these books may be put in the hands of the public. A large circulation may be said to be the best index of successful library work and may be consistent even with a comparatively small number of books. To develop and increase this circulation, therefore, is the constant purpose of the trustees and must recommend itself to all members of the City Council. Such development involves, it is true, the inevitable question of expense, yet the trustees hope that the recommendation of the librarian for a new catalogue or for a new finding list may meet with your cordial approval. Without such a ready reference the circulation of books through the schools and delivery stations is already much hampered.

It has been frequently pointed out that the location of the library, although geographically central enough, sometimes acted as a deterrent to the free use of this institution. The difficulty has been partially overcome during the present year by the re-establishment of the delivery stations, some thirteen in various sections of the city being now maintained at an expense no greater than formerly incurred for eight. With suitable catalogues or finding lists the circulation through these stations might be easily doubled within the coming year.

In the early part of the present year the trustees gave very careful attention to the condition of the branch library located at East Cambridge, and as a result felt compelled to ask your Honorable Body for a special appropriation. The sum of one thousand dollars was granted and expended largely in the purchase and repair of books. We are gratified to report that since the reopening of the branch its patronage has increased over two hundred per cent.

In this connection the trustees beg to call your attention to the fact that heretofore the establishment of branch libraries was considered by them something of an experiment. It is now clear, as result of our experience during the past year, that the unsatisfactory condition of the East Cambridge branch was due to a lack of proper financial support, and that if deterioration is to be prevented in the future a larger annual appropriation becomes absolutely necessary.

The demands for the establishment of branch libraries in other sections of the city are becoming more and more urgent, but it is hoped by the trustees that any action in this direction may be accompanied by a suitable appropriation.

The trustees again urge upon the attention of the City Council their conviction that the correspondence of the work of the library with that of the schools might be amplified and made much more intimate and profitable by the appointment of an assistant who might give her whole time to this important work.

Another method of value in utilizing the forces of the library is that of deposit collections. By means of a small expenditure on the part of the city, it would be possible to place a number of books in the rooms of every church, school, club, or association applying for the use of them, and giving the needful guarantees of proper care. By moving these collections from place to place at intervals of one month, a constant interest might be developed among those who otherwise would rarely come in contact with the work of the library.

The trustees express with pleasure their approval and commendation of the intelligent and faithful work done by the various members of the library staff. A careful inspection of this work and an estimate of the time and ability devoted thereto have convinced the members of the Board that your Honorable Body should take these facts again under consideration with a view to the arrangement of a satisfactory basis of compensation.

It is with much regret that the trustees have received the announcement of the resignation of the librarian, Mr. William L. R. Gifford. Coming to Cambridge in the year 1895, after the lamented death of Miss Almira L. Hayward, Mr. Gifford undertook with singular skill and untiring

patience the classification and cataloguing of all the books of the library according to the most approved modern methods. It is not too much to say that his success in this great work and his control of every administrative detail have reflected credit not only upon himself, but upon the library and the city of Cambridge.

EUGENE A. McCARTHY,
THOMAS WENTWORTH HIGGINSON,
ALBERT M. BARNES,
EDWARD C. WHEELER,
J. HENRY DUCKREY
JOHN BUCKLEY,
PHILIP M. FITZSIMONS,
} *Trustees.*

REPORT OF THE LIBRARIAN

CAMBRIDGE, MASS., November 27, 1903.

To the Trustees of the Cambridge Public Library:—

GENTLEMEN:—I invite your attention to the following report of the work of the library for the year now closing.

LIBRARY BUILDING.

Early in the present year, electric lights were installed in the addition to the stack. The system has proved to be economical and generally satisfactory, and it has recently been extended thoroughout the old part of the stack. The former wasteful method of lighting this part of our building has now been entirely superseded by a modern system which promises to yield excellent results. The completion of this work makes more apparent than ever before the desirability of re-painting the walls and portions of the ironwork of the old part of the stack, and I hope you may find it possible to do this during the coming year. The entire stack should then require very little in way of repairs for some years to come.

The resetting of the steps at the main entrance of the building has again been postponed for lack of money. The steps can hardly be said to be unsafe, but in their present condition they are certainly unsightly. At the Trowbridge Street entrance slight repairs on the masonry have been made during the present month.

LOCAL STATIONS AND SCHOOLS.

Although the appropriation for the general expenses of the main library was practically unchanged from that of last year, it was deemed best to re-establish the local delivery stations. Through the willingness of the agents to accept a smaller compensation than heretofore, a considerable increase in the number was made possible. We now have thirteen, including the branch library, and nearly all of them have been in operation since April 4. The inceased number has naturally divided the work according to new lines, although North Cambridge still remains the district where we send the most books. New stations are often more or less of an

experiment, and every attempt to bring a new locality into closer touch with the main library is by no means sure to succeed. Two or three of our present delivery stations have as yet shown little indication that they are needed; and unless they give stronger evidence of usefulness before the expiration of a year from the time of their establishment, it may be advisable to abandon them in favor of some other locations.

The arrangement described in my last report for sending books to the schools by express was continued through June at the expense of the school board, but with the beginning of the fall term we again assumed the cost of delivery. Under the arrangement made by the school authorities, the books sent to each school were exchanged once in two weeks, and we have found by experience that most of the teachers prefer to keep them for fully that period of time. In order to faciliate the work of our carrier, we have accordingly divided the schools into two groups, to which deliveries are made alternately. This plan has given satisfactory results, and I do not think a better method can be devised without increasing the cost of the carrier service.

CATALOGUE.

The re-establishment of the local stations emphasizes a need which is particularly felt by the people who rarely come to the main library. To such persons the lack of a printed catalogue is a source of great inconvenience. Our monthly bulletin furnishes information in regard to the new books, but there is no trustworthy printed guide to the old ones, other than fiction. The classification of the library has made the old general catalogues of little value, and under any circumstances they would now be hopelessly out of date. A detailed printed catalogue is practically out of the question for a library as large as ours, and we must depend chiefly on the card catalogue, which is not accessible to patrons of the local stations. We could, however, issue a brief finding-list, omitting, if necessary, the books seldom consulted, and we might print from time to time lists devoted to special subjects. Short lists of this kind which have appeared in our bulletin have been found very useful; and a series similar in character, though wider in scope and issued in pursuance of a general plan, would be of great service to the schools as well as to the local stations. In 1899 we printed a fiction catalogue which is still in constant use, although the additions and inevitable changes made since it was issued have rendered a new edition most desirable.

In our bulletin, which has nearly completed its eighth volume, we have adhered to the plan of giving full entries of books, with analysis of contents and also critical comment. The information thus afforded in regard

to the new books is well worth, in my opinion, the additional cost of printing. Our bulletin has apparently been of use to some of the smaller libraries, for in addition to those with which we make regular exchanges of publications there are now forty-five libraries which pay the small subscription required in order to receive the bulletin regularly by mail.

EAST CAMBRIDGE BRANCH.

The small annual appropriation for the support of the East Cambridge branch library proved to be insufficient to keep it from deteriorating and altogether prohibited any permanent growth. A vigorous appeal to the City Council resulted in an additional appropriation of $1,000. The branch was then closed from June 15 to August 3, in order that a thorough renovation might be made. The attendant's desk was removed to another part of the room for the purpose of giving readers the benefit of the light from the west windows, and these windows were equipped with much-needed awnings. All books that needed rebinding were made presentable, and about five hundred volumes were bought, including both replaced books and additions. Three sets of stereoscopic views, similar to those in use at the main library, have been placed in the branch, and they have been in almost constant use by the children. A complete card-catalogue of the books in the branch library is now available, although the patrons of the library still have free access to the shelves. In accordance with the wish expressed by the finance committee of the City Council, a comparatively small part of the additional appropriation was spent on the library room, in order that the books might receive chief consideration. For this reason the laying of a new floor was postponed, and the platform at the west end of the room, which is not needed, has beeh retained for the present. The general appearance and atmosphere of the place have been greatly improved by the changes made, but the improvement cannot be permanent unless we obtain for the branch library a larger annual appropriation than it has ever received previous to this year.

Mr. Henderson, the attendant in charge, resigned in August, and his place was filled by the appointment of Miss Mary Curtis. Although without previous experience in library work, Miss Curtis has taken up her new duties with enthusiasm and has been particularly successful in interesting the children to whose need the branch caters largely.

LIBRARY STAFF.

Several changes in the staff have occurred during the year. Miss Chapman resigned in the spring to accept a more attractive position in the

library of the New England Historic Genealogical Society, and Miss Parker resigned in September to take a course of study at Radcliffe. The vacancies thus caused were filled by the election of Miss Ellen M. Hayes and Miss Katharine A. O'Donnell. Miss Parker's admirable work as reference librarian has made this position one of constantly growing usefulness and importance, and in the readjustment caused by the two resignations this work has been assigned, at her own request, to Miss Smith, one of our most experienced assistants.

Miss Whitman has given up her position as Sunday attendant, and her place has been taken by Miss Florence Sewell. The oversight of the children on Sunday now requires practically all the time of the attendant, and for this work Miss Sewell has shown a decided aptitude. An additional Sunday attendant is now required, whose entire attention should be given to the main reading-room and reference library. The gain to the patrons of the library would amply justify the small additional cost.

PRENTISS BEQUEST.

A welcome addition to the resources of the library came in December last in the form of a bequest from Miss Abigail L. Prentiss. The sum of $7,350.39 was received with which to establish the "William E. Saunders Alcove" in memory of a nephew of Miss Prentiss. By vote of the board of trustees, the southern end of the genealogical room has been so designated, and a suitable tablet is to be placed there to commemorate the gift. Nearly all the fund has now been invested in bonds of the city of Cambridge, and the income derived therefrom will probably suffice to furnish all the genealogies and local histories which we shall need. Inasmuch as the books bought from this fund must be kept together, it will doubtless be necessary in time to come to remove to the stack some of the books now in this room, but this can be done without causing serious detriment to the usefulness of the collection. The steadily increasing use that has been made of this department of the library has shown that the facilities afforded for genealogical research are esteemed by the community. Our field of purchase in local history is practically restricted to New England, and chiefly to Massachusetts.

MISCELLANEOUS.

We have recently added five new sets to our collection of stereoscopic views, and the total number is now twelve. They afford so much pleasure to the children who frequent the library that it is quite unnecessary to attempt to put an estimate on their direct educational value.

Meetings of the staff have been held once a month during the year. New books have been discussed, and informal talks have been given on several matters of library administration.

The statistics of circulation, expenditures, etc., will be found as usual in the appendices. The circulation from the main library has fallen off during the last quarter so that the total is less than that of last year. The local circulation is gradually regaining lost ground, although as yet it is much smaller than it should be. The school circulation has made a decided incease, much of which is due to the Harvard school, which has taken 3,210 books from the library. Since the East Cambridge branch was reopened, the circulation has gained notably, and the figures next year may be expected to exceed largely those of any previous year.

I have just received from the directors of the St. Louis Mercantile Library Association an invitation to become their librarian. The position offers so many advantages that I have accepted it, and it will accordingly be necessary for me to leave Cambridge early in the coming year. I shall give up my work here with many regrets, and I must leave unfinished much which I had hoped to complete. I wish to thank the members of the board of trustees with whom I have been associated for the confidence and support they have given me, and I am grateful to my assistants for their cordial and faithful coöperation. I trust you may find that my administration has helped in some degree to make our library useful to the people of Cambridge.

Respectfully submitted,

WILLIAM L. R. GIFFORD,
Librarian.

APPENDIX I

GENERAL STATISTICS.

Total number of volumes in the library	63,277
Volumes added during 1903	4,102
Volumes condemned	2,725
Duplicates exchanged	44
Volumes destroyed on account of contagious diseases	23
Volumes lost, main library	56
Volumes, lost, East Cambridge branch	78
Volumes bound	3,035

CIRCULATION.

	Central.	Local, including branch library.	Schools.	Total.
First Quarter	37,628	5,185	4,276	47,089
Second Quarter	34,207	6,790	4,428	45,425
Third Quarter	25,538	6,267	.....	31,805
Fourth Quarter	28,689	15,929	3,218	47,836
Total	126,062	34,171*	11,922	172,155

* Regular local deliveries began April 4, 1903.

Average per day (Central library)	413
Largest issue (Central library), Feb. 21	998
Largest issue (Local stations), Nov 21	201
Smallest issue (Central library), Sept. 17	190
Teachers' books drawn directly from library	4,239

CLASSIFIED CIRCULATION (MAIN LIBRARY).

Classes.	General Works.	Philosophy.	Religion.	Sociology.	Philology.	Science.	Useful Arts.	Fine Arts.	Literature.	History.	Biography.	Fiction, including juvenile fiction.	Current Magazines.	Total.
Circulation...	4,097	1,141	1,309	2,861	472	2,237	1,872	3,519	6,929	8,462	4,631	83,039	5,493	126,062
Per cent.....	.032	.009	.01	.023	.004	.018	.015	.028	.055	.067	.037	.658	.044	

SCHOOL DELIVERY.

Name of School.	Ellis.	Harvard.	Morse.	Peabody.	Putnam.	Roberts.	Russell.	Shepard	Sleeper.	Taylor.	Thorndike.	Webster.	Wellington.	Willow St.	Total.
Books delivered.	1,219	3,210	642	921	1,901	755	849	255	352	302	658	29	369	460	11,922

LOCAL DELIVERY.*

Stations.....	Dow.	East Cambridge.	Gove.	Hunnewell.	Lombard.	Lynch.	Martin.	Murphy.	Nelson.	O'Donnell.	Phillips.	St. Paul's.	Yerxa.	Deposit Collections	East Cambridge branch.	Total.
Books delivered.	1,218	343	858	2,712	1,678	79	648	504	1,022	97	432	98	405	1,921	22,156	34,171

* Regular local deliveries began April 4, 1903.

ADDITIONS (INCLUDING REPLACED BOOKS).

Source.....	City appropriation.	Citizens' subscription fund.	Cummings fund.	Fay fund.	W. F. Saunders fund.	Gifts.	By exchange.	Total.
Books.....	3,836	27	4	6	12	212	5	4,102

APPENDIX II.

AMOUNTS RECEIVED BY THE LIBRARIAN AND DEPOSITED WITH THE CITY TREASURER.

	Fines.	Catalogues.	Duplicates.	Paper stock, etc.	Total.
December-February	$173 88	$2 10	$0 50	$2 41	$178 89
March-May	157 36	1 35	.....	4 29	163 00
June-August	131 47	1 80	.....	6 84	140 11
September-November	127 66	1 35	.....	3 51	132 52
Total	$590 37	$6 60	$0 50	$17 05	$614 52

CITY APPROPRIATION.

Salaries.

Appropriation		$9,350 00
Expended		9,317 23
Amount unexpended		$32 77

General Expenses.

Appropriation		$8,650 00

Expenditures.

Binding	$926 21	
Books and periodicals	4,268 01	
Bulletin	347 50	
Fuel	564 91	
Furniture	35 75	
Incidentals	377 97	
Insurance	180 00	
Lighting	837 75	
Local stations	602 50	
Printing, postage and stationery	350 92	
Repairs	156 50	
		8,648 02
Amount unexpended		$1 98

SPECIAL APPROPRIATION FOR EAST CAMBRIDGE BRANCH LIBRARY.

Salaries.

Appropriation	$855 00
Expended	850 69
Amount unexpended	$4 31

General Expenses

Appropriation	$1,545 00

Expenditures.

Binding	$216 70	
Books and periodicals	910 27	
Furniture	127 75	
Incidentals	169 65	
Lighting	62 10	
Stereoscopic views	58 10	
		1,544 57
Amount unexpended		$0 43

FUNDS OF THE TRUSTEES.

Citizens' Subscription Fund.

Balance, December 15, 1902	$184 24
Interest on bonds	220 00
Cash gift, credited to this fund	18 00
	$422 24

EXPENDITURES.

Cambridge Trust Co.	$10 00	
Cunningham Bros.	20 00	
Charles Evans	15 00	
Houghton, Mifflin & Co.	25 00	
C. A. Kirkpatrick	3 00	
Library Art Club	5 00	
Little, Brown & Co.	88 30	
Geo. E. Littlefield	27 00	
Peabody Museum, Harvard University	16 00	
Prince Society	4 00	
Society for Psychical Research	5 00	
Underwood & Underwood	101 70	
Geo. H. Walker & Co.	15 00	
		335 00
Balance on hand, December 15, 1903		$87 24

Cummings Fund.

Balance, December 15, 1902	$8 43
Interest on bond	80 00
	$88 43

EXPENDITURES.

American Architect and Building News Company	$4 00	
J. B. Millet Company	25 00	
		$29 00
Balance on hand, December 15, 1903		$59 43

Fay Fund.

Balance, December 15, 1902		$26 12
Interest on bond		35 00
		$61 12

EXPENDITURES.

Geo. E. Littlefield	$28 60	
Somerville Historical Society	1 00	
		29 60
Balance on hand, December 15, 1903		$31 52

William E. Saunders Fund.

Amount received from estate of Abigail L. Prentiss		$7,350 39
Interest on daily balances		37 75
Interest from savings bank		6 13
Interest on bonds		122 50
		$7,516 77

EXPENDITURES.

City of Cambridge, bonds for investment	$7,000 00	
Deposited in Cambridgeport Savings Bank	350 39	
Interest on savings bank deposits, added to principal	6 13	
Geo. E. Littlefield	55 30	
Massachusetts Society of Mayflower Decendants	2 00	
New England Historic Genealogical Society	3 00	
		7,416 82
Balance on hand, December 15, 1903		$99 95

APPENDIX III

GIFTS.

	V.	P.
Abbott Public Library, Marblehead		1
Abbott, Edward	1	
Abams, Charles Francis, Boston		1
Adriance Memorial Library, Poughkeepsie, N. Y.		1
Aguilar Free Library Society, New York, N. Y.		1
American Congregational Association, Boston	1	1
Amherst College		1
Ancient and Honorable Artillery Company, Boston	1	1
Andover Theological Society		1
Apprentices' Library Company, Philadelphia, Pa.		2
Austin, Mrs.	1	
Bailey, Mrs. Annie V.	5	
Balch, Thomas Willing, Philadelphia, Pa.	1	
Bangor (Maine) Public Library		1
Barnard College, New York, N. Y.		1
Barnard Memorial, Boston	1	
Batchelder, Samuel Francis		1
Belmont Public Library		1
Beveridge, Albert J., Indianapolis, Ind.		1
Birmingham (England) Free Libraries		1
Boston, City of	2	
Boston Athenaeum		1
Boston Public Library	3	3
Boston Transit Commission	1	
Boston University		2
Bostonian Society		1
Bowditch, Charles P.		1
Bowdoin College, Brunswick, Maine		3
Brewster, Caroline F. Bust		
Brockton Public Library		1
Bronson Library Fund, Waterbury, Conn.		1
Brookline Public Library		2
Brooklyn (N. Y.) Library		1
Brown University, Providence, R. I.		2
Bryn Mawr (Pa.) College		2
Burlington (Vt.) Free Public Library		2
California State Board of Architecture, San Francisco, Cal.		1
Cambridge, City of	3	1
Cambridge: —		
Associated Charities		2
Avon Home		1
Cantabrigia Club		7
Episcopal Theological School		2
Mount Auburn Cemetery		1
Social Union		1
Young Men's Christian Asociation		1
Young Women's Christian Association		1
Carnegie Free Library, Braddock, Pa.		1
Carnegie Library, Pittsburg, Pa.,	1	1
Channing, Walter, Brookline		1
Charity Organization Society of the City of New York, N Y.		1
Chicago (Ill.) Public Library		5
Cincinnati (Ohio) Public Library		3
Clerk, Susie C.	1	

	V.	P.
Clark University, Worcester		1
Cleveland (Ohio) Public Library		1
Cole, George Watson, New York, N. Y.		1
Colorado College and Cutlery Academy, Colorado Springs, Col.		1
Columbia University, New York, N. Y.		2
Columbus (Ohio) Public School Library		1
Concord Free Public Library		2
Concord (N. H.) Public Library		1
Cornell University, Ithaca, N. Y.		1
Dartmouth College, Hanover, N. H.		1
Davis, Andrew McFarland		4
Dayton (Ohio) Public Library and Museum		1
District of Columbia Public Library, Washington, D. C.		1
Dodd, Mead & Co , New York, N. Y.	1	
Dover (N. H.) Public Library		1
Drexel Institute, Philadelphia, Pa.		1
Enoch Pratt Free Library, Baltimore, Md.		1
Erie (Pa.) Public Library		1
Fall River Public Library		2
Fitchburg, City of	1	
Fitchburg Public Library		1
Fitz Public Library, Chelsea		1
Fletcher Free Library, Burlington, Vt.		1
Forbes Library, Northampton		1
Framingham State Normal School		1
Fuller, Edith D.	1	
Gifford, William L. R.		1
Girard College, Philadelphia, Pa.		1
Green, Samuel Abbott, Boston . . . . 1 oil painting		
Gurney, Ephraim W., Estate of	32	
Hamilton (Canada) Public Library		1
Harper and Brothers, New York, N. Y.	2	
Harvard University Library	1	3
Hatch Experiment Station, Amherst		1
Haverford (Pa.) College		1
Haverhill Public Library		1
Higginson, Thomas Wentworth	1	5
Hill, J. Foster	1	
Hoar, George F., Washington, D. C.	1	
Hoboken Free Public Library		1
Holy Cross College, Worcester		4
Houghton, Mifflin & Co., Boston	1	
Hyde Park Public Library		1
Indian Rights Association, Philadelphia, Pa.		1
Indianapolis (Ind.) Public Library		1
Iowa College, Grinnell, Iowa		2
John Crerar Library, Chicago, Ill.	1	2
Johns Hopkins University, Baltimore, Md.		2
Lake Mohonk, (N. Y.) Conference on International Arbitration		1
Lancaster Town Library		1
Lawrence Free Public Library		1
Leicester Public Library		1
Leland Stanford, jr. University, Palo Alto, Cal.		1
Leominster Public Library		1
Leyton (Eng.) Public Libraries		1
Lochman, Hariet D.	1	
Lowell Textile School		2
Lund, Joseph W.		1
Lynn Public Library		1
McCall, Samuel W , Washington, D. C.	2	
McNeill, G. E.	1	
Madison (Wis.) Free Library		2

	V.	P.
Malden Public Library		1
Manchester (N. H.) City Library		1
Manitowoc (Wis.) Public Library		1
Mason, Henry Lowell		1
Massachusetts, Commonwealth of	71	4
Massachusetts College of Phamacy, Boston		1
Massachusetts Institute of Technology, Boston		1
Massachusetts Single Tax League, Boston		1
Massachusetts State Board of Charity	1	
Massachusetts Total Abstinence Society, Boston		1
Medford Public Library		1
Merchants' Association of New York, N. Y.	1	
Millicent Library, Fairhaven		1
Milton Public Library		1
Milwaukee (Wis.) Public Library		1
Minneapolis (Minn.) Park Commissioners		1
Minneapolis (Minn.) Public Library		2
Moore, Albert Hanford		1
Mount Holyoke College, South Hadley		2
Museum of Comparative Zoölogy	6	
Museum of Fine Arts, Boston		3
National Civil Service Reform League, New York, N. Y.		1
National Sound Money League, New York, N. Y	1	
New Bedford Free Public Library		3
New England Antivivisection Society	1	
New Haven (Conn.) Free Public Library		1
New York (N. Y.) Public Library	1	
New York State Library, Albany	5	1
Newark (N. J.) Free Public Library		1
Newton Free Library		3
North Adams Public Library		1
Northampton Public Library		1
Northfield Seminary, East Northfield		1
Norton, Margaret		2
Oberlin (Ohio) College	1	
Osterhout Free Library, Wilkes Barré, Pa.		1
Palmer, George Herbert	1	
Parlin Library, Everett		1
Paterson (N. J.) Free Public Library		2
Peoria (Ill.) Public Library		1
Philadelphia (Pa) Free Library		1
Phillips Exeter Academy, Exeter, N. H.	1	
Pillsbury, Albert E., Boston	2	
Pilot Publishing Company, Boston		1
Piper, William Taggard	1	
Portland (Maine) Public Library		1
Portland (Oregon) Library Association		2
Pratt Institute, Brooklyn, N. Y.		1
Princeton (N. J.) University	1	
Providence (R. I) Athenaeum		1
Providence (R. I.) Public Library		1
Providence (R. I.) Record Commissioners	1	
Public Reservations, Trustees of, Boston		1
Radcliffe College		2
Redwood Library and Athenaeum, Newport, R. I.		1
Reform Club, Sound Currency Committee	1	
Reynolds (N. Y) Library		1
Robbins Library, Arlington		1
Rochester (N. Y.) Central Library		1
Rolfe, William J.	2	
Roxbury Historical Society		1
Ruggles, Henry Stoddard, Wakefield		1

	V.	P.
St. John's College, Fordham, New York, N. Y.		2
St. Lawrence University, Canton, N. Y.		1
St. Louis (Mo.) Mercantile Library Association		1
Salem Public Library		2
San Francisco (Cal.) Public Library		1
Scranton (Pa.) Public Library	1	1
Seattle (Wash.) Public Library		1
Shute Memorial Library, Everett		1
Simmons College, Boston		3
Smith, Mrs. Anna B.	1	
Smith, Ralph Kendrick		1
Smith, Robert Lawrence	5	
Smith College, Northampton		2
Smithsonian Institution	5	
Somerville Public Library		1
Springfield City Library Association		1
State University of Iowa, Iowa City		2
Stearns, F. P.	1	
Syracuse (N. Y.) Public Library		1
Taunton Public Library.		1
Thayer, John Eliot, Lancaster	1	
Trenton (N. J.) Free Public Library		1
Trinity College, Hartford, Conn.		1
Tufts College, Medford		2
Tufts Library, Weymouth		2
United States : —		
Agriculture, Department of		4
Education, Bureau of	2	
Geological Survey	4	
Interstate Commerce Commission	3	
Labor, Department of	2	
Library of Congress	5	
Life Saving Service.	1	
National Museum	1	
Navy Department	2	
Patent Office	2	
Philippine Civil Service Board		2
Statistics, Bureau of	3	
War Department	2	
United States Military Academy, West Point, N. Y.		3
Universalist Publishing House, Boston	1	
University of California, Berkeley		3
University of Chicago, Ill		1
University of Colorado, Boulder		1
University of Illinois, Urbana		3
University of Michigan, Ann Arbor		1
University of Nebraska, Lincoln		1
University of Pennsylvania, Philadelphia		1
University of Vermont, Burlington		1
University of Wisconsin, Madison		1
Vassar College, Poughkeepsie, N. Y.		1
Watertown Public Library		2
Wellesley College		1
Wells College, Aurora, N. Y.		1
Wesleyan University, Middletown, Conn.		4
Westborough Public Library		1
Western Reserve University, Cleveland, Ohio		1
Westminster Public Libraries, London, Eng.		1
Whitman, William		1
Whorf, Edward Henry, Boston	6	
Williams, Rufus P.		1
Williams, Mrs Rufus P.		46

	V.	P.
Williams College, Williamstown	1	2
Wilmington (Del.) Institute		1
Wilson, Butler R.		1
Wisconsin State Historical Society, Madison, Wis.		1
Woburn Public Library		1
Woman's College, Baltimore, Md.		1
Wood, Henry	1	
Woodman, Cyrus, Estate of	1	
Worcester Academy		1
Worcester Polytechnic Institute		2
Yale University, New Haven, Conn.	1	1

Bulletins, or similar publications, have been received from the following institutions: —

Birmingham (Eng.) Free Libraries
Boston Public Library
Brockton Public Library
Brookline Public Library
Brooklyn (N. Y.) Public Library
Carnegie Library, Pittsburgh, Pa.
Cincinnati (Ohio) Public Library
Cleveland (Ohio) Public Library
Denver (Col.) Public Library
Dover (N. H.) Public Library
Field Columbian Museum, Chicago, Ill.
Fitchburg Public Library
Haverhill Public Library
Helena (Montana) Public Library
Hyde Park Public Library
Iowa College, Grinnell, Iowa
Iowa Library Commission, Des Moines, Iowa
Iowa Masonic Library, Cedar Rapids, Iowa
Leyton (Eng.) District Council Public Libraries
Lowell City Library
Lynn Public Library
Malden Public Library
Milicent Library, Fairhaven
Milton Public Library
Minneapolis (Minn) Public Library
Museum of Comparative Zoölogy
New Bedford Free Public Library
New Haven (Conn) Free Public Library
New York (N. Y) Public Library
Osterhout Free Library, Wilkes-Barré, Pa.
Peabody Museum
Pratt Institute, Brooklyn, N. Y.
St. Louis (Mo.) Public Free Library
Salem Public Library
San Francisco (Cal.) Public Library
Scranton (Pa.) Public Library
Somerville Public Library
Tacoma (Wash.) Public Library
Warren County Library, Monmouth, Ill.
Wilmington (Del) Institute Library
Worcester Free Public Library

REPORT OF THE ELECTRICAL DEPARTMENT

Office of the City Electrician.
December 1, 1903.

To the Honorable, the City Council of the City of Cambridge: —

Gentlemen: — In accordance with the provisions of the City Ordinances I respectfully submit the fifth annual report of the Electrical Department.

On April 4, 1903, the former City Electrician, Mr. Charles F. Hopewell, tendered his resignation. The appointment of the present City Electrician followed on April 7.

INSPECTION OF WIRES IN BUILDINGS.

The ordinances require that all wires within buildings shall be inspected by the Inspector of Wires when such wires are designed to carry current for electric light, heat, or power.

No connection for service to these wires is made by the Cambridge Electric Light Company until a certificate of inspection, stating the voltage, the amount of current, and the use to which it is to be put, is given by this Department. This insures the inspection of all new wiring before the current is turned on. By an agreement with the Inspection of Buildings Department, no permit for lathing is giving for new buildings in which electric wiring is installed until such wiring is inspected and a certificate to that effect is shown to the Inspector of Buildings. This prevents any wires being covered by laths and plastering before they are inspected.

This department has adopted and enforces the rules of the "National Electrical Code," these being the standard rules for electric wiring throughout the country. There are, throughout the City, many buildings in which the wiring is obsolete and in many cases dangerous. While it has been impossible to make a through and systematic inspection of all such cases, several have come to my notice, and the owners, on having their attention called to the defects in their wires, have cheerfully followed the suggestions made to remedy them. I recommend that next

year the appropriation be sufficient to enable the Department to make a thorough investigation of the installations in all old buildings in the City, to the end that such installations may be made to conform to the present standards.

TABULATION OF INTERIOR WIRING INSPECTIONS MADE IN 1903.

Number of inspections	282
Number of visits	457
Capacity of 16 C. P. incandescent lamps installed	7,783
Number of low potential arc lamps installed	28
Number of motors installed	84
Horse power of motors installed	1,388
Number of generators installed	5
Kilowatt capacity of generators installed	235

In addition to the above inspections and visits, frequent visits are necessary for the purpose of giving advice in connection with wiring that is to be installed. No record of these is made except that note is made of the suggestions that are given in order that the Inspectors may refer to them later.

SUPERVISION OF ELECTRIC WIRES AND POLES IN THE STREETS.

There has been this year no general and complete examination of the poles in the streets on account of lack of help. Your Superintendent has, however, examined and condemned a number of poles, chief among which are the telephone poles on Green, Oxford and Main Streets. The attention of the Telephone Company has been called to these lines and to some few other poles, and steps are being taken to set new poles as soon as possible. The Cambridge Electric Light Company has also shown its willingness to co-operate with the Department by setting new poles wherever its attention is called to the condition of the old poles. This work makes additional labor for the Electrical Department in changing the City wires so that the old poles may be removed. I earnestly recommend that next year the appropriation for the Wire Department be sufficient to enable this work of inspecting poles to be done thoroughly and systematically.

The various companies operating and maintaining poles in this City have this year jointly petitioned the City Council to change the ordinance relating to the kind of poles to be used, so that they may in certain cases use round chestnut poles instead of square hard pine poles as they are now compelled to use. I believe that the use of hard pine poles in every instance is an unnecessary hardship to the various companies, and that the ordinance may well be changed to allow the use of round chestnut

poles, provided the conditions regulating the locations, size, quality and color be made sufficiently strict. The representativess of the above mentioned companies have appeared before your committee in support of their petition and your Superintendent cannot but concur with the reasons and arguments which they have presented.

In connection with the attachment of wires to the poles, very little trouble is found, since it is for the best interest of the owners to use proper construction. Several instances have been noted however, where the construction has deteriorated to such an extent as to need repairs which were made as soon as attention was called to them.

POLE STATISTICS.

Owner.	Number of poles Dec. 1, 1902.	Number of poles Dec. 1, 1903.	Increase in 1903.
Cambridge Electric Light Co.	3,132	3,163	31 increase
New England Tel. & Tel. Co.	968	992	24 "
Boston Elevated R'y Co. (Iron)	834	833	1 decrease
" " " (Wooden)	20	20	None
City	1	1	"

Joint Ownership of Poles.

Cambridge Electric Light Co. and Boston Elevated Railway Co.	725
Cambridge Electric Light Co. and New England Tel. & Tel. Co.	17

Joint Occupancy of Poles.

New England Tel. & Tel. Co. on Cambridge Electric Light Co.	955
New England Tel & Tel Co on Boston Elevated Railway Co.	132
Boston Elevated Railway Co on New England Tel. & Tel Co.	300
Western Union Telegraph Co. on New England Tel. & Tel. Co.	52
Western Union Telegraph Co. on Camb idge Electric Light Co.	24
Boston & Maine Railroad Co. on New England Tel. & Tel. Co.	4
Postal Telegraph Co. on Cambridge Electric Light Co	41
Number of wire attachments of Cambridge Electric Light Co. to New England Tel & Tel Co poles	911
Number of wire attachments of New England Tel. & Tel. Co. to Cambridge Electric Light Co. poles: —	
Single wires	1,825
Parallel wires	2,086
Cables	14
Cable boxes	8
Number of wire atachments of New England Tel. & Tel. Co. to Boston Elevated Railway Co. poles: —	
Single wires	417
Parallel wires	138
Cables	18

Permits to Run Wires.

Number of permits to run wires issued to New England Tel. & Tel. Co.	449
" " " " " " Cambridge Electric Light Co.	6
" " " " " " Boston Elevated Railway Co.	1
Total	456

ELECTRICAL CONSTRUCTION WORK.

No new circuits have been added to the Fire Alarm and Police Telegraph Systems during the past year except a few short loops for tappers in cases where firemen or other owners of such, changed their place of residence. Parts of the old circuits, however, amounting to approximately fifteen miles of wire, have been renewed. The more important among these are Main Street, five miles; Third Street, three miles; and Prison Point Street, nearly one mile.

As has been the custom in past years, the Department has renewed and kept in running order the electric bells and batteries in the schoolhouses and other public buildings and has done considerable repair work on electric light wires for the different City Departments.

Specifications for electric light wiring were drawn up for wiring the old stack room of the Cambridge Public Library and for the Elm Street School. The wiring in the Library has been completed, and that in the Elm Street School is now being supervised personally by your City Electrician.

FIRE ALARM SYSTEM.

On assuming office in April, your City Electrician commenced an investigation of the Fire Alarm System, which investigation, on account of the stress of other work, was not completed until September.

The deplorable condition in which the system was found is not due to any fault of the former City Electrician but rather to the lack of sufficient appropriation in past years to provide for proper maintenance. The most important piece of apparatus connected with the system, namely, the fast time repeater, is a home made article constructed out of second-hand material, and while it is a very creditable piece of work, it is not sufficiently reliable to do the work imposed upon it. This apparatus sends out all the alarms to the engine, ladder and chemical houses, and its importance cannot be overestimated.

The switch board for charging the storage batteries, the circuit drop, which tells the operator the circuit on which the alarm is sent in, and other less important but very necessary pieces of apparatus are also of home made construction, and although they have in the past done their work as well as could be expected of them, their usefulness in the light of the present day construction and necessities is practically over. They must be used as best they may, however, until replaced by new and better apparatus, and until this is done the assurance that the system will continue to send out alarms properly is very slight.

It would be inexpedient, however, to install new apparatus in the present Fire Alarm Headquarters. The central office is now located on the third floor of the Brattle Square building, and the present arrangement and surroundings are wholly unsuitable for so important an installation as the Central Fire Alarm Office equipment. The building itself is not fireproof and is used for a number of different purposes. It must be remembered that even though fire did not occur in the Fire Alarm Office itself, water used in extinguishing a fire in some other part of the building would probably incapacitate the Fire Alarm System for a considerable length of time.

A small room in the cellar is now used for a store room by this Department. Besides being wholly inadequate in size this store room is very inconveniently situated. The battery room, also, is in an inconvenient situation with respect to the apparatus room. In case of trouble in the battery room necessitating the attention of the operator, the apparatus in the office is left without an attendant. In going from the battery room to the apparatus room the operator must pass through two doors and traverse a long dark hall, in which there are two turns, which causes great delay should his presence be required suddenly in the office. The battery room should properly be directly connected with the office.

The emergency wagon is left in the basement under the stable of Truck No. 1's house, which is wholly unfit for the purpose. This part of the basement is also used for storing the refuse from the stable above.

The necessity for a new Fire Alarm Station is made more apparent when the fact is considered that the City must very soon bury its wires. In the natural order of events this time cannot be far off, and the centre of distribution of the system should be fixed permanently beforehand, since it would necessitate great trouble and expense to move the apparatus, once it was put in place and connected with the circuits.

I quote below from last year's report some further recommendations of the former City Electrician, to which I can add nothing except to respectfully ask that they, as well as the other matters already mentioned, may receive your earnest consideration.

"In order to expedite the transmitting of an alarm of fire, I would recommend that sufficient appropriation be made the ensuing year to equip the seventy-two fire alarm boxes now unprovided with keyless doors with such device.

Your Inspector would again ask this year that a sufficient appropriation be made to allow the Department to equip its fire alarm boxes, which are not yet provided with a non-interference pull, with such a device. These pulls, if installed, would prevent the liability of a mixed up alarm from one of these boxes, due to the pulling of the box several times in rapid succession. He would also recommend the substituting of

reverse current magnets in place of direct acting magnets in the tower strikers and whistles. This would obviate the present need of relays and local batteries, and would thererore render the service more reliable and less costly to maintain.

Again this year would your Inspector recommend that sufficient appropriation be made for the ensuing year to allow for a night operator at our Central Station. At the present time, the City is dependent upon the members of the day force who sleep in the Central Station for the transmitting of an alarm of fire at night. This, of course, requires that such members shall be suddenly awakened from sleep in order to transmit the alarm without loss of time. The strain thus thrust upon the operator has been such that it has resulted in the breaking down of the health of two members during the past five years, and who were, therefore, compelled to resign from the service. This position is a responsible one, and ought to have an operator continually on duty by night as well as by day.

A reliable automatic time stamp should also be installed in the Central office in order to automatically record the time an alarm of fire is received, for the present arrangement is not sufficiently accurate."

In September I presented a petition to the City Council asking for an additional appropriation for the purpose of putting the City wires in a safe condition. That part of the report connected therewith which bears on this subject I will quote:

"It must be remembered that the efficiency of the Fire Department depends to a large extent on the promptness with which it can reach a burning building. The first point to consider to bring about such promptness is that the Department must be notified, first that a fire has occurred, and second, the location where it has occurred. For such notification the Fire Department depends wholly on the Fire Alarm Department. The necessity for having as good and reliable a Signal System as possible is manifestly obvious. The same considerations hold true for the Police Telegraph System in that the police depend on the Signal System for reporting emergencies, as well as for making their ordinary duty calls, and the captains and sergeants of the various stations depend on it for giving instructions to the police while they are on duty.

Now, our Fire Alarm and Police Telegraph Systems are not in either a safe or reliable condition. In the first place, practically all the City wires are bare iron. If in any way one of these wires becomes crossed on the electric light wires, as when one of them breaks, any person who touches the wire, whether he be a private citizen or one of the line men of the department, is liable to be seriously injured by the electric light current which the broken wire will be carrying at the time. Such an accident would be very rare if the wires were in good condition, even though they were bare. Further, when a wire breaks, all the signal apparatus on the circuit on which the break occurs is useless until the broken wire is found and the fault remedied, which at night is often a troublesome piece of work. The linemen must first be called from their

homes, if the break occurs at night, then harness their horse at the Fire Alarm Office, locate the fault, and finally use great care if other wires carrying high tension currents run on the same poles. Repairing such faults at night usually requires the use of covered wire on account of the danger attending the handling of bare wires. The fact that these troubles occur as a rule in stormy weather, adds to the danger, since then the insulation on wires is of the least benefit.

During the time which elapses while repairs are being made, the district covered by the circuit involved is unprotected in case of fire, and the Fire Alarm boxes are worse than useless, for the people, not knowing that they will not work, still depend on them and attempt to use them.

Now, owing to the frailty of the wires, which is due to wear and corrosion from exposure, breaks have been very frequent during the past summer. None of the storms since April have been severe, but in almost every instance we have had one or more open circuits on account of them. They should have caused little or no trouble,at most nothing worse than a 'grounnd,' due to a wet limb of a tree bearing on the wires, or some such cause. The samples of wire which I send you with this letter will show better than I can express the condition of the material we have to deal with. Originally this was 0.15 inches in diameter. As it is now it is impossible to work with it. A joint cannot be made with it, in fact, a great deal of it cannot be bent back or forth once without breaking. When a break occurs on a line, several hundred feet of new wire must often be run in until a point is reached where the old wire is in sufficiently good condition to allow a joint to be made. Moreover, the excessive number of joints caused by repairing these breaks adds enormously to the resistance of the circuit, and therefore increases the load on the batteries.

What I have said above refers to the Fire Alarm System, but the same conditions hold true for the Police Telegraph and Private Telephone Systems. This state of affairs is not one which has come on suddenly, but has been growing worse for some time. Most of the wire on the streets named should have been removed three or four, or even more, years ago, to be compatible with the safety that should exist."

Last year your Superintendent asked for an appropriation to change the steam whistle at the Cambridge Electric Light Company's plant from the old building to the new one. The necessity for doing this is occasioned by the intention of the Company to discontinue running its old station as soon as the new arc lamps that are to be used on the streets are installed. In order that the whistle may continue in use the change to the new station must be made immediately, and I recommend therefore that the cost be included in the appropriation for the coming year.

That the members of the City Government may have a more complete grasp of the actual conditions and more fully realize the necessity of bettering them, I cordially invite the City Council to visit the Fire Alarm Headquarters before making an appropriation for the Department.

The following is a statistical review of the system : —

Central Station equipment	1
Fire alarm boxes on the street	101
Fire alarm boxes on private premises	27
Fire alarm boxes with keyless doors	28
Fire alarm boxes with glass doors	9
Fire alarm boxes with glass key boxes	16
Length of circuit wire in system, in miles	94
Tower bells connected with system	10
Steam whistles connected with system	3
Tappers in firemen's residences	56
Tappers in factories where firemen work	10
Tappers in permanent men's residences	24
Tappers in call men's residences	32
Tappers in Electrical Department men's residences	5
Tappers other than in factories or firemen's houses and not in engine houses	3
Telephones connected with the system	22
Number of bell alarms for fire sounded during the past year	225
Number os second alarms for fire sounded during the past year	3
Number of third or general alarms sounded during the past year	2
Number of " no school " alarms sounded during the past year	10
Number of still alarms reported during the past year	22

POLICE SIGNAL SYSTEM.

No important changes or additions have been made in this system during the past year, except to make necessary repairs in the circuits and to overhaul and repair the registers in the stations.

A new automatic time stamp should be provided for Station 1. The old stamp requires constant attention and frequent repair, and is but little better than none at all. An extra time stamp should also be bought to enable the stamps to be cleaned without depriving the station of their instruments during such cleaning, and also to substitute for one of the others in case of a breakdown.

One of the most important features of the Police Signal System is the telephone service it provides between the Police Station and the policeman at a street signal box. In Districts 2 and 3 this service is good, but in District 1 it is extremely poor. It is almost impossible to distinguish what is said at either the station or the signal box. The trouble in this District is due to the fact that the Police Signal wires run on the same poles with the electric light wires and to some extent with the Boston Elevated feeders. The currents in these wires set up in the Police Signal wires induced currents which cause a loud humming noise in the telephone receivers and make talking over the wires practically impossible. At night, when the telephone service is even of greater use than during the day, the noise is much worse on account of the heavier current used for lighting.

The remedy, if overhead wires are to be continued, is to use twisted pair cables. I would recommend, however, that underground cable be

used wherever the City has conduit and that short stretches of overhead cable be run from the underground to the boxes on streets where conduit is not provided.

I respectfully ask the City Council this year to give the subject of underground wires its earnest consideration.

The City is sadly in need of more Police Signal boxes, and those now on the streets should be rearranged so that the protection they afford might be more effective. This work and the installation of underground cable should be done at the same time and without further delay, and I recommend that an appropriation therefore be provided next year.

POLICE SIGNAL EQUIPMENT.

Three complete station equipments.
Two patrol wagon house equipments.
Eighty street patrol boxes.
Private telephone system with five stations.
Forty-five miles of circuit wires.

Following is an inventory of the Wire Department, which is less than cost but exceeds a fair market value: —

INVENTORY OF THE WIRE DEPARTMENT.

Fire alarm apparatus and machinery	$12,000 00
Fire alarm circuits	2,200 00
101 fire alarm boxes	6,060 00
Fire alarm reserve apparatus	1,050 00
Police signal apparatus and machinery	3,000 00
Police signal circuits	2,500 00
Eighty police boxes	10,000 00
Police signal reserve apparatus	150 00
Testing instruments	450 00
Tools	500 00
Furnishings at fire alarm headquarters	400 00
Stock on hand	550 00
Old and disused apparatus	650 00
Horses, wagons and harnesses	450 00
Building in Belmont school yard	400 00
	$40,360 00

STREET LIGHTING DEPARTMENT.

This year there have been added to the number of lamps on the streets fourteen new arc lamps, thirty-one incandescent electric lamps, and five Welsbach gas lamps. There are in addition in the files of the Department, orders for seven arc lamps and fourteen incandescent lamps and I recommend that the appropriation for Street Lighting be increased next year to allow these to be installed and to provide for a further increase in the number of lamps during the ensuing year.

The question of changing the type of arc lamp has received a great deal of attention this year. In April the Cambridge Electric Light Company erected on Mt. Auburn, Brattle and Craigie Streets fifteen series alternating arc lamps, there being three lamps from each of five different manufacturers. They were tested before being set up and again after burning for three months, and were inspected almost nightly by your Superintendent.

The lamp made by the General Electric Company was finally selected as being the best from all points of view. Some delay has been met with by the Cambridge Electric Light Company in getting the new lamps and the apparatus incident to their installation, but it is certain that the change will be made within the next three months. The work of changing will necessarily be slow, because the old lamps must be maintained till the new are ready to be lighted. The old mast arms will be retained pending changes in the position of many of the lamps, after which new arms will be put up.

The contract for street lighting was renewed with the Welsbach Street Lighting Company uuder the same terms and conditions as last year.

FINANCIAL STATEMENT.

A more detailed account can be found in the Auditor's report.

Amount appropriated for salaries	$1,000 00
" " " other expenses	75,500 00

The principal items of expense are as follows: —

For arc lighting	$52,690 82
For incandescent lighting	11,987 17
For Welsbach gas lighting	8,440 44
Salary of Superintendent	1,000 00

The expense for electric lighting has been as follows: —

ARC LAMPS.

Amount of bills rendered	$53,069 13
Amount of deduction for outage	378 31
Amount expended for arc lighting	$52,690 82

INCANDESCENT LAMPS.

Amount of bills rendered	$12,058 54
Amount of deduction for outage	71 37
Amount expended for incandescent lighting	$11,987 17

The expense for gas lighting has been as follows: —

WELSBACH GAS LAMPS.

Amount of bills rendered	$8,458 06
Amount deducted for outage	17 62
Amount expended for Welsbach gas lighting	$8,440 44

STATISTICAL STATEMENT.

The number of hours in which one or more lamps failed to burn is: —

For arc lamps	9,458
For incandescent lamps	7,137
For Welsbach gas lamps	1,762
Total outage hours for all lamps for year 1903	18,357

The number of lamps maintained by the City on the streets on November 30, 1903, is as follows:—

	Number Nov. 30, 1903.	Increase during the year.
Arc lamps	543½	14
Incandescent electric lamps	432	31
Welsbach gas lamps	287	5
Total	1,262½*	50

*Half the expense of one lamp borne by private party.

INVENTORY OF LAMP DIVISION.

287 lamp posts	$2,870 00
Office furniture	275 00
Stock on hand (old and disused)	400 00
Horse, carriage and harness	370 00
	$3,915 00

I respectfully submit to your Honorable Body the recommendations contained herein, and trust you will give this Department the consideration it deserves. The lack of attention shown to the Fire Alarm and Police Telegraph Systems in the matter of appropriations in past years has seriously crippled these very important adjuncts to the Fire and Police Departments, and they cannot continue to work successfully for a much longer period unless important improvements are made.

I desire to extend my thanks to the chairman and members of the Committee on Lamps and Wires for the courtesy shown me during the past year.

To His Honor, the Mayor, I desire to express my appreciation of the valuable advice and support given me in matters pertaining to the Department.

Respectfully submitted,

TIMOTHY C. O'HEARN,
Inspector of Wires,
Superintendent of Lamps.

REPORT OF THE BOARD OF CEMETERY COMMISSIONERS

CAMBRIDGE, December 1, 1903.

To the Honorable, the City Council: —

The Board of Commissioners of the Cambridge Cemetery respectfully submits its fiftieth annual report, the same being for the year ending November 30, 1903.

The amount appropriated at the beginning of the year was	$16,000 00
The total amount of expenditure was	$16,573 12

The additional appropriation required to meet the maintenance of the department was secured from the City Council by order approved September 28.

Of the foregoing expenditure, $13,973.92 was for Salaries and Labor, and $2,599.20 for Supplies.

For a detailed account of expenses, reference is made to the City Auditors's Report.

The receipts of the year have been as follows :—

Burial and tomb fees		$4,146 00
Care of lots		2,162 77
Sale of lots and graves		6,268 02
Foundations, brick graves, etc.		1,579 55
Interest on Cemetery Fund		2,184 68
Sundries		549 97
Total		$16,890 99
The estimated revenue by this Board from General Account was	$18,500 00	
Decrease of revenue over estimate		$1,609 01

The revenue account presents a fairly satisfactory exhibit. While the amount received is considerably less than had been expected by the Board, the receipts have been normal, and, as such, reveal a condition not displeasing to the Board.

The sales of lots have been encouraging, although this feature of cemetery business has been conducted at a great disadvantage, owing to the limited opportunity afforded intending purchasers to make any choice. Especially is this true of smaller lots and single graves, which are available in only one portion of the grounds. Despite the opportunity for choice, however, the sale of lots has equalled that of recent years excepting during the past two seasons. The sale of fifty-five lots were negotiated in 1902 as against thirty-seven the past season.

The number of interments has decreased, being 531 for the past season as against 605 in 1902, and a large part of this reduction may fairly be alleged to be due to the same reasons as militate against a larger sale of lots.

During many seasons, the charges for care of lots has been a prolific source of complaint, mainly because of a misunderstanding among proprietors of what constituted the care of a lot. To properly adjust this matter by providing a standard rate for all charges the Board on May 26, 1903, adopted a schedule of rates for the care, etc., of lots, which is as follows: —

SCHEDULE OF RATES.

	Each.
Single graves, in public or private lots, prepared for plants	$1 00
Two graves, in one private lot, prepared for plants	75
Three or more graves, in one private lot, prepared for plants	50
Single circle or border, prepared for plants	1 00
Two circles or borders, prepared for plants	75
Three or more circles or borders, prepared for plants	50
Vases — preparation and * care, without plants	1 50
Vases — preparation, without plants	50
Vases — * care, without plants	1 00
Setting out plants, when furnished by owner, each grave, circle or border	25

* CARE, ETC., OF GRAVES AND LOTS.

	Care.	Top Dressing.
Single graves	$1 00	$ 25
Two-grave lots	1 00	50
Three-grave lots	1 25	50
Four-grave lots	1 50	75
Six-grave lots	1 50	1 00
200 feet and under 300	2 00	1 25
300 feet and under 400	2 50	1 50
For every 100 feet over 300	1 00	75

In "perpetual care" lots, borders and beds will be cut out and prepared for plants, on request of the proprietors thereof, at the rates scheduled above.

* Care includes watering, weeding, cutting grass and trimming.

Under this schedule the cost of ordinary care has been reduced to a minimum, the rate being as low, if not lower, than in any cemetery in this vicinity. The receipts have decreased slightly under the new arrangement, but it is believed that an increased number of orders for care of lots will result in a correspondingly larger revenue to the Department.

The appropriation for the year 1903 was fixed at $16,000,—$2,000 of which was for Supplies, the remainder for Salaries and Labor.

This is the smallest amount appropriated within the past fifteen years, and the Board was compelled in June to request an additional appropriation of $600 for the purchase of necessary supplies.

Even with the added sum the appropriation was less than any since 1888, and the strictest economy was required to conduct the department within the amount of the appropriation. For ten years past the appropriations have averaged $18,700, and with the ever increasing demands a smaller sum must necessarily mean the deferring of much needed work. The small appropriations rendered impossible any construction work.

A new public lot is an immediate need, and its preparation should not be delayed, but the Board has been unable to carry out any general scheme of improvement which would permit the location and preparation of a public lot.

The territory about Greenwood and River Avenues should be laid out during the coming season, and to do this work properly an appropriation should be made to allow the employment of a force of laborers. The cost will be largely for labor, although some filling must be secured for a portion of the locality.

The interest aroused among proprietors with reference to placing their lots under perpetual care has not suffered abatement, as twenty-one lots have been added to the list. The fund has increased $2,583.52, making a total invested fund of $60,686.20.

Much inquiry has also been made in relation to the acceptance and conditions of deeds in trust to the City, and this method of insuring the perpetual execution of the wishes of a proprietor will doubtless meet with favor in the near future. When it is known that a conveyance in trust to the City is a positive deterrent to the commercial inclinations of inconsiderate heirs at law, its value must be readily apparent. By this system, also, a holder is enabled to retain a control of the lot during the lifetime of the grantor, the City acting only in agreement with the provisions of the trusts as indicated in the conveyance.

The Superintendent reports the following statistics, to wit: —

Interments for 1903	531
Interments, total	25,345
Interments (Overseers of the Poor)	38
Lots sold	37
Graves sold	41
Lots ready for sale	186
Estimated value of same	$35,552 84
Graves ready for sale	118
Estimated value of same	$2,050 00
Expended on old burial ground	90 00
Expended on soldiers' lot (Prospect Avenue)	45 00
Expended on soldiers' lot (Summit Avenue)	28 00

The Superintendent also reports to this Board recomendations for a typewriting machine, for the extension of the water mains from Halcyon Avenue to River Avenue and on Lawn Avenue, from Elm Avenue to Pros-

pect Avenue, for new uniforms for the men attending funerals, for a new directory of the proprietors of lots, for painting the iron fences at Cambridge Cemetery and the Old Burial ground and for the introduction of electric lighting to the office building, — all of which are approved by the Board.

ADDITIONAL LANDS.

For the past two years, negotiations have been pending towards securing the property of the Mt. Auburn Cemetery Corporation on Coolidge Avenue. As yet no positive action has been taken by the City Council, although the matter has been urged by this Board, through a belief in the wisdom of controlling the use of the territory adjacent to the Cemetery entrance.

This is an important reason for acquiring the property, and it would be possible to arrange the ground for burial uses at small expense.

For many years past, the desirability of the Coolidge estate as a part of the Cemetery property, has been admitted by members of the several Boards of Commissioners and an attempt was made in 1895 to purchase the property but the impossibility of obtaining a proposal which was deemed reasonable by the Commissioners precluded any consideration of purchase. Although the opportunity remained for securing the territory by the right of eminent domain, the City Council and the Commissioners were loathe to adopt so drastic a measure and the project was temporarily abandoned.

Within the past two months a proposition has been made to this Board for the sale of this estate to the City, and consultations have been held between the representatives of the estate and this Board.

The proposition met with some favor by this Board, by reason of the availability of the premises for cemetery uses and the not unreasonable price placed upon them. This Board however, felt that the cost to the City was somewhat excessive and finally decided to recommend to the City Council the purchase of the property at a price, not exceeding $150,000, this sum being $25,000 lower than the formal offer of the Coolidge agents. $300,000 was formerly asked for the same property.

This estate lies between Coolidge Avenue on the west, the land of the Commonwealth assigned to the Metropolitan Park System on the east, Mt. Auburn Street on the north and Cambridge Cemetery on the south, and contains about 1,500,000 square feet.

Two-thirds of the territory is upland, the soil of which is well adapted to burial purposes, while it is estimated that there is more than sufficient surplus material on the estate to fill to suitable grade, any low places.

Possession by the City would give a main entrance on Mt. Auburn Street immediately opposite to the Metropolitan Park Driveway to Fresh Pond, a consummation to be sought by all persons interested in the Cemetery. Besides, a large frontage remains on Coolidge Avenue and the Metropolitan Park Reservation on Willis Court and along the River Side.

If it is believed that additional land will be needed in this generation, it would seem that this proposition should not be lightly turned aside. By the acquisition of this property the area of the Cemetery would be almost doubled, and its importance as a seemly and desirable resting place for the deceased enhanced, while the great opportunity to select choice spots for burial lots would attract a larger number of our citizens, with an increasing financial return.

It is probable, also, that the property may be secured at this time at a price much lower than may be possible in the future.

A tender has been made of the lands lying in Watertown, adjacent to the Cemetery and situated southerly therefrom, but this proffer does not meet the approbation of the Board at the present time.

With the meeting of the Board in January last, Commissioners Bertsch and Welch severed their connection with it at the close of their terms of service. Both were well qualified to act as members of this Board and had given unselfishly of their time and effort in the performance of their duties.

As a mark of the lasting esteem of their associates the remaining members passed the following resolve at the meeting held on January 29, 1903, and the same is recorded on the records of the Board:—

" On the retirement of Commissioners Bertsch and Welch from service on the Board of Cemetery Commissioners, Chairman George S. Saunders and Commissioners Chase, Lombard and O'Brien, the remaining members of the Board, desire to record their appreciation of the value of their work as members of this Board for so many years.

Mr. Bertsch was chosen a member in 1890, and Mr. Welch in 1893, and during their membership they have unsparingly given of their knowledge and time in directing and supervising the affairs of the Cemetery Department.

Serving with no inducement of pecuniary gain, actuated with and controlled by only a fervent desire to faithfully execute the requirements of their trusteeships, they have earned the encomium of their fellow citizens.

Therefore be it

Resolved, That the remaining members of this Board hereby record their appreciation of the disinterestedness and value of the services of Commissioners Bertsch and Welch, and tender to each of their colleagues their sincere well wishes for their future."

At the annual meeting held on Feb. 2, 1903, Messrs. John S. Clary and John Lynch presented credentials as members of the Board, each for the term of three years.

At this meeting Mr. Charles S. Childs, who had courteously officiated as Superintendent since 1887, severed his connection with the Cemetery, and the vacancy remained unfilled until May 6, 1903, when Mr. George D. Ford was appointed Superintendent.

Mr. J. Watson Taylor resigned as Clerk at the Cemetery on Nov. 28, 1902. He had served acceptably as Clerk since 1887, and this Board regretfully accepted his resignation on Feb. 2, 1903, at which meeting, Mr. John J. McKenzie was appointed to the vacancy.

GEORGE S. SAUNDERS, *Chairman,*
NATHAN C. LOMBARD,
MICHAEL J. O'BRIEN,
HERBERT A. CHASE,
JOHN S. CLARY,
JOHN LYNCH,
Board of Cemetery Commissioners.

CITY CLERK'S REPORT OF FEES AND LICENSES

OFFICE OF THE CITY CLERK,

December 1, 1903.

To the Honorable, the City Council of the City of Cambridge: —

The undersigned herewith presents an account of the sums received for fees and licenses during the year ending November 30, 1903.

Auctioneers' Licenses	$56 00
Pool, Bowling Alley and Billiard Licenses	70 00
Wagon and Carriage Licenses	288 00
Intelligence Office Licenses	50 00
Junk Store and Collectors' Licenses	114 00
Recording Mortgages, Assignments, etc.	581 90
Marriage Certificates	572 00
Certified Copies from Records	110 25
Fees from Dog Licenses	427 80
Fees from Liquor Licenses	59 00
Fees from Fireworks Licenses	122 00
Fees frem Peddlers' Licenses	77 00
Sundries	134 39
Total	$2,662 34

The foregoing amount has been paid into the City Treasury.

The receipts from Dog Licenses have been $5,378.00. Of this amount, the City Clerk's fee (20 cents for each license issued), amounting to the sum of $427.80 is included in the above list of fees, and the balance, amounting to $4,950.40, has been paid the County Treasurer.

Respectfully submitted,

EDWARD J. BRANDON,

City Clerk.

REPORT OF THE CITY TREASURER

City of Cambridge,
Office of City Treasurer, December 1, 1903.

To the Honorable, the City Council:—

In the following pages I submit a detailed report of the receipts and expenditures of the public funds by the Treasury Department, during the year ending November 30, 1903, including an account of all bonded and temporary loans negotiated in said year; also, a detailed account of official fees received, and reports on the "Cemetery Fund" and the "Sarah E. Russell Fund."

Very respectfully,

WM. W. DALLINGER,
City Treasurer.

City of Cambridge in Account Current from December 1, 1902, to

Dr.

To authorized payments charged to City Accounts:—

Abatements — Taxes	$41,525 33
Assessors' Department:—	
Salaries and Clerical Assistance	12,307 19
General Expenses	1,264 17
Auditing Department:—	
Salaries and Clerical Assistance	3,713 38
General Expenses	331 94
Board of Survey	106 50
Bridge Department:—	
Salaries and Labor	10,444 91
General Expenses	6,671 36
Cambridge Bridge	153,710 86
Paving Harvard Bridge	2,635 50
Cemetery Department:—	
Salaries and Labor	13,957 25
General Expenses	2,517 07
Cemetery Fund	2,583 52
City Clerk's Department:—	
Salaries and Clerical Assistance	5,995 25
General Expenses	1,548 89
City Messenger's Department:—	
Salaries	1,371 96
General Expenses	261 18
Postage and Stationery	1,085 88
Civil Service Department	248 55
Clerk of Committee's Department:—	
Salaries	3,362 94
General Expenses	341 07
Contingent Fund	16,924 14
Election Expenses:—	
City Clerk	6,199 11
Registrars of Voters	4,449 55
Superintendent of Public Buildings	3,114 28
Electrical Department:—	
Street Lighting:—	
Salaries	1,000 00
General Expenses	73,678 85
Wire Account:—	
Salaries and Labor	6,494 41
General Expenses	3,123 39
Engineering Department:—	
Salaries and Clerical Assistance	9,154 66
General Expenses	771 41
Assessors' Plans	176 62
Executive Department:—	
Salaries and Clerical Assistance	5,362 11
General Expenses	376 69
Fire Department:—	
Salaries	78,426 23
General Expenses	17,111 98
Land for Engine House	65 00
Grade Crossing—Commercial Avenue	150 00
Health Department:—	
Salaries	11,840 23
General Expenses	8,012 37
Small-pox Hospital	11,114 68
Temporary Hospital	7,758 02
Inspection of Milk and Vinegar:—	
Salaries	1,372 98
General Expenses	297 16
Inspector of Animals	786 50
Interest	185,194 63
Land Damages	14,761 55
Grade Crossing — Prison Point	15,000 00
Amount carried forward	$748,701 25

Nov. 30, 1903 (inclusive), with Wm. W. Dallinger, City Treasurer.

Cr.

By receipts as follows:—

Assessors' Department—General Expenses	$1 50
Betterments:—	
Granite Street	1,000 25
Green Street	714 90
Clark Street	919 25
Inman Court	56 45
Pleasant Street	929 75
Belmont Street	174 45
Bridge Department	398 91
Cemetery Department	16,890 99
Cemetery Fund	2,583 52
City Clerk's Department	2,662 34
City Messenger's Department	26 19
Postage and Stationery	1,033 12
Commissioners of Sinking Funds	186,000 00
Contingent Fund	6,340 42
Electrical Department:—	
Street Lighting	5 00
Wire Account	148 10
Fire Department	190 50
Grade Crossing Account	15,150 00
Health Department	2,869 20
Inspection of Milk and Vinegar	124 00
Interest	12,107 44
Law Department—General Expenses	500 00
Loans:—	
Building	3,000 00
Cambridge Bridge	150,000 00
Park	50,000 00
Schoolhouse	80,000 00
Sewer	60,000 00
Street	16,000 00
Temporary	701,000 00
Overseers of the Poor Department:—	
City Home	1,185 64
Farm	3,922 64
House Offal	10,359 99
Outside Aid	2,476 29
Park Department:—	
Construction and Lands	2,101 66
Maintenance	60 46
Bath House	1,134 71
Brown-Tail Moth Extermination	250 03
Interest	14 58
Plumbers Examiners' Department	31 00
Police Department	4,941 20
Premium Account	5,508 00
Public Library Department	4,920 12
Public Property Department:—	
City Buildings	4,479 61
Schoolhouses	15,147 56
Schoolhouses—General Expenses	5,035 00
School Department:—	
Salaries	8,503 85
Text-Books and Supplies	517 44
Sealer of Weights and Measures	911 26
Amount carried forward	$1,382,327 26

CITY OF CAMBRIDGE IN ACCOUNT CURRENT FROM DECEMBER 1, 1902, TO

Dr.

Amount brought forward	$748,701 25
Law Department: —	
Salaries and Clerical Assistance	4,295 00
General Expenses	610 86
Loan: —	
Building	40,000 00
Sewer	136,000 00
Street Widening	10,000 00
Temporary	670,000 00
Overseers of the Poor Department: —	
City Home: —	
Salaries	7,301 50
General Expenses	11,352 13
Farm: —	
Labor	4,222 55
Supplies	776 73
House Offal: —	
Labor	24,159 50
General Expenses	5,725 90
Outside Aid: —	
Salaries and Clerical Assistance	3,178 78
General Expenses	37,955 56
Salary of City Physician	1,500 00
Park Department: —	
Construction and Lands	45,074 45
Baths and Lockers	2,435 34
Rindge Field	2,999 09
Maintenance: —	
Bath House	2,279 55
Brown-tail Moth Extermination	3,639 13
Cambridge Field and Shelter	4,680 55
Commons, Squares and Public Grounds	5,099 97
General Account	402 57
Sections A, B, D, F, and Rindge Field	3,003 73
Sections G and H	3,206 10
Shade Trees	4,954 64
Interest	42,395 00
Plumbers Examiners' Department	78 50
Police Department: —	
Salaries and Clerical Assistance	128,433 33
General Expenses	6,339 68
Public Library Department: —	
Main Library: —	
Salaries	9,313 32
General Expenses	8,820 41
East Cambridge Branch: —	
Salaries	871 52
General Expenses	1,508 13
Addition	644 42
Public Property Department: —	
City Buildings: —	
Salaries	8,729 26
General Expenses	7,078 50
Inspection of Buildings: —	
Salaries and Clerical Assistance	5,400 96
General Expenses	771 10
Schoolhouses: —	
Salaries	34,824 25
General Expenses	47,819 86
Armory on Beech Street	97 58
Land for Engine House in old Ward 5	2,750 00
New Washington Schoolhouse	19,137 41
New Schoolhouse—Elm Street	30,919 35
New Schoolhouse—Willow Street	59,978 67
Rifle Range	259 23
School Department: —	
Care of Truants	1,803 61
Flags	99 28
Amount carried forward	$2,201,628 25

Nov. 30, 1903 (inclusive), with Wm. W. Dallinger, City Treasurer.

Cr.

Amount brought forward	$1,382,327 26
Sewer Department:—	
Construction	1,554 83
Maintenance	1,764 83
State Aid	15,209 00
Street Department:—	
Maintenance	2,215 29
Paving—Edgestones and Sidewalks	9,673 61
Watering	17,721 73
Tax:—	
Corporation	85,827 41
National Bank	18,822 84
Taxes:—	
1897	50 00
1898	238 80
1899	621 98
1900	796 06
1901	4,832 55
1902	357,448 25
1903	1,398,904 92
Treasury Department	2,401 03
Water Works Department:—	
Construction	5,727 85
Maintenance	346,534 45
Total Receipts	$3,652,672 69
Cash Balance in Treasury, November 29, 1902	257,194 90
Amount carried forward	$3,909,867 59

City of Cambridge in Account Current from December 1, 1902, to

Dr.

Amount brought forward	$2,201,628 25
Incidentals	1,417 64
Salaries	354,681 30
Text Books and Supplies	18,010 56
Transportations of Pupils	306 00
Sealer of Weights and Measures:—	
Salaries	1,821 42
General Expenses	665 87
Sewer Department:—	
Construction—General	25,115 03
Improved Sewerage	50,573 85
Maintenance—General	17,904 26
Dredging at Outlet of Bridge Street Sewer	2,672 78
Sinking Funds:—	
Cambridge Bridge	6,000 00
Clay Lands	5,335 00
General	107,067 75
Harvard Bridge	8,800 00
Hospital	225 00
Improved Sewerage	5,764 00
Metropolitan Park Assessment	1,012 00
Park	22,306 67
State Aid	25,107 38
Street Department:—	
Bridges	3,195 00
Cleaning Streets	34,880 13
Collection of Ashes	28,522 44
Construction:—	
Sundry Streets, Wards 6 and 7	1,476 15
Sundry Streets, Ward 11	681 43
Belmont Street	6 38
Clifton Street	978 26
Commercial Avenue—Filling and Grading	383 91
Commercial Avenue—Incidentals	50 00
Granite Street	47 06
Munroe Street	25 03
Reed Street	22 10
Warland Street	846 02
Maintenance:—	
Salary of Superintendent and Clerical Assistance	4,100 00
Macadamizing, Resurfacing and Repairing Streets and General Expenses	63,816 20
Paving:—	
Crossings and Repairs	10,000 00
Edgestones and Sidewalks	28,134 16
Rebuilding Streets:—	
Bridge Street	21 39
Brookline Street	3,387 23
Cambridge Street	1,117 99
River Street	10,450 11
Watering	28,026 31
Tax:—	
Armory	9,766 68
County	104,400 56
Metropolitan Park	34,541 40
Metropolitan Sewer	79,836 65
National Bank	6,740 92
State	79,700 00
Tax Lien Account	37 30
Treasury Department:—	
Salaries and Clerical Assistance	9,949 00
General Expenses	4,943 76
Water Works Department:—	
Construction:—	
General	9,099 41
Meters	1,983 12
Fresh Pond	896 88
Hobbs Brook:—	
General	16 00
Amount carried forward	$3,418,493 74

NOV. 30, 1903 (INCLUSIVE), WITH WM. W. DALLINGER, CITY TREASURER.

Cr.

Amount brought forward	$3,909,867 59
Amount carried forward	$3,909,867 59

City of Cambridge in Account Current from December 1, 1903, to

Dr.

Amount brought forward	$3,418,493 74
Land Settlements	11,550 47
Services of City Solicitor	500 00
Stony Brook Main	3,421 41
Maintenance: —	
Salaries of Superintendent, Registrar, Clerk of Board, and Clerical Assistance	4,715 08
General Expenses and Rent	22,784 58
Office Expenses: —	
Salaries	1,627 75
General Expenses	173 70
Pumping: —	
Salaries and Labor	5,092 65
General Expenses	15,636 93
Fresh Pond	5,816 52
Hobbs Brook	1,223 96
Payson Park	794 86
Stony Brook	3,364 48
Supplies	2,491 44
Ice for Fountains	404 01
Interest	128,806 50
Abatements	3,756 45
Refunds	3,169 06
Sinking Fund	123,145 78
Total Payments	$3,756,969 37
Cash Balance in Treasury, November 30, 1903	152,898 22
	$3,909,867 59

Nov. 30, 1903, (INCLUSIVE), WITH WM. W. DALLINGER, CITY TREASURER.

Cr.

Amount brought forward	$3,909,867 59
	$3,909,867 59

TEMPORARY LOANS IN ANTICIPATION OF TAXES, NEGOTIATED IN THE YEAR ENDING NOVEMBER 30, 1903.

Date.	Maturity.	Amount.	
1903	**1903**		
January 29....	July 1....	$80,000	With interest at 4 per cent. per annum.
March 6....	October 12....	25,000	Discounted " 4.25 " "
March 6....	October 12 ...	20,000	" " 4.25 " "
March 6....	October 12....	25,000	" " 4.95 " "
June 19....	October 19....	25,000	" " 4.50 " "
June 19....	October 19....	25,000	" " 4.50 " "
June 20....	October 19....	50,000	" " 4.50 " "
June 20....	October 19....	50,000	" " 4.50 " "
July 8....	October 16....	25,000	With interest " 4.70 " "
July 8....	October 16 ...	25,000	" " " 4.70 " "
July 7....	October 16....	25,000	" " " 4.50 " "
July 7....	October 16....	25,000	Discounted " 4.50 " "
July 10....	October 19....	20,000	" " 4.42 " "
July 10....	October 19....	20,000	" " 4.42 " "
July 10....	October 19....	20,000	" " 4 42 " "
July 10....	October 19....	20,000	" " 4.42 " "
July 10....	October 19....	20,000	" " 4.42 " "
August 11....	October 15....	25,000	" " 4.90 " "
August 11....	October 15 ...	15,000	" " 4.90 " "
August 11....	October 15...	15 000	" " 4.90 " "
August 11....	October 15....	10,000	" " 4.90 " "
August 11....	October 15....	10,000	" " 4 90 " "
September 10....	October 30....	25,000	" " 4.90 " "
September 10...	October 30....	25,000	" " 4.90 " "
September 10....	October 30....	25,000	" " 4.90 " "
		$650,000	Average interest rate 4.606 per cent.

These loans were all paid before the close of the financial year.

In addition to the foregoing loans there has been negotiated under date of November 30, 1903, a note for $51,000, required to meet the appropriations for the financial year. The note bears interest at 4.50 per cent. per annum from December 10, 1903, matures July 1, 1904, and is to be paid from the present uncollected taxes of 1903, collected prior to that date. The note is held by the Commissioners of Sinking Funds of Cambridge, Mass.

PARTICULARS CONCERNING THE BONDS NEGOTIATED DURING THE YEAR ENDING NOVEMBER 30, 1903.

Date of Bond.	Amount.	Loan.	Years to Run.	Rate of Interest.	Purchaser.	Price Paid.	Basis.
1903							
Jan. 1...	$50,000	Cambridge Bridge	40	3½	Estabrook & Co.....	105.16	3.37
Apr. 1...	50,000	Cambridge Bridge	40	3½	Cambridge Savings Bank.....	102.18	3.40
Apr. 1...	3,000	Building.....	20	3½	Trustees Camb. Public Library..	Par	3.50
Apr. 1...	4,000	Street	20	3½	Trustees Camb. Public Library..	Par	3.50
Apr. 1...	50,000	Park	40	3½	Merrill, Oldham & Co	102.18	3.40
Apr. 1...	40,000	Sewer.....	30	3½	Merrill, Oldham & Co.....	101.87	3.40
Oct. 1...	20,000	Sewer.....	30	3½	Adams & Co..	Par	3.50
Oct. 1...	80,000	School house	20	3½	Adams & Co.....	Par	3.50
Nov. 2...	12,000	Street	20	3½	City Treasurer of Cambridge, in trust for Cemetery Fund.....	Par	3.50
Aug. 1...	50,000	Cambridge Bridge	40	3½	Merrill, Oldham & Co.....	Par	3.50
	$359,000						

RECAPITULATION.

Cambridge Bridge Loan	$150,000 00	Sewer Loan	$60,000 00
Building Loan	3,000 00	Schoolhouse	80,000 00
Street Loan	16,000 00		
Park Loan	50,000 00	Total issue	$359,000 00

FEES.

During the year the Treasurer has received official fees amounting to $2,401.03, itemized as follows: —

Summonses to delinquents	$1,073 60	
Preparing advertisements of sale	295 00	
Advertisements of sale	359 33	
Posting notices of sale	256 00	
Making tax deeds	388 00	
Recording of affidavits	29 10	
		$2,401 03

These fees were all turned into the City Treasury as received.

CEMETERY FUND.

Received during the year ending November 30, 1903, from proprietors of lots in Cambridge Cemetery	$2,583 52	
Which added to amount of Fund December 1, 1902	58,234 68	
Makes the present amount		$60,818 20

The interest received on the Fund for the year was $2,184.68; which has been paid to the Commissioners of the Cambridge Cemetery for the care of all lots placed in perpetual care.

The assets of the Fund, as of November 30, 1903, are invested as follows, viz: —

Registered bonds of City of Cambridge amounting to	$57,400 00	
Deposited in Cambridgeport Savings Bank	3,418 20	
		$60,818 20
Fund for perpetual care of lots is	$60,686 20	
Fund for Deeds in Trust is	132 00	
		$60,818 20

This fund is held in trust by the City Treasurer.

SARAH E. RUSSELL FUND.

This is a fund bequeathed by the late Sarah E. Russell of Cambridge, in 1898, "the income therefrom to be annually expended in or towards providing a Christmas tree or Christmas gifts and entertainments for the inmates at the time of the Cambridge Almshouse."

The amount of the bequest was $814.41, and was deposited in the Cambridgeport Savings Bank, where it now remains.

The interest accumulations to November 30, 1903, have been paid to Mr. C. E. Goodrow, Superintendent of the City Home, to be used at the approaching Christmas as stipulated in the will of Mrs. Russell.

REPORT OF THE COMMISSIONERS OF THE SINKING FUNDS

To the Honorable, the City Council: —

The Commissioners of the several Sinking Funds of the City herewith submit their annual report covering the year ending November 30, 1903.

Under the provisions of the Ordinance our report shows the condition of all the Sinking Funds of the City under two divisions, Municipal and Water.

The following shows the condition of the strictly Municipal Loan Fund :—

DR.

The amount of the Funds November, 30, 1902, was	$1,095,255 09	
Received from the City of Cambridge, the annual requirements as appropriated by the City Council for the different loans	156,510 42	
Interest received on the invested funds	43,702 78	
		$1,295,468 29

CR.

Paid the City Treasurer of Cambridge the amounts necessary to meet City Loans as they matured, viz.,		
Sewer Loan, 6's, matured July 1, 1903,	$136,000 00	
Street widening, 6's, matured, July, 1, 1903	10,000 00	
Building Loan, 4's, matured, Nov. 1, 1903	40,000 00	
Paid premiums on investments purchased	178 30	
Paid accrued interest on investments purchased	311 50	
Leaving the funds November 30, 1903	1,108,978 49	
		$1,295,468 29

The following shows the condition of the Water Loan Funds: —

DR.

The amount of the Funds, November 30, 1902, was	$907,635 98	
The amount received from City of Cambridge, being annual requirements for 1903, derived from Water rates	123,145 78	
Interest received on invested funds	34,437 99	
		$1,065,219 75

CR.

Paid accrued interest on investments purchased	$595 19	
Paid premiums on investments purchased	1,803 10	
Leaving the par value of the Funds, Nov. 30, 1903	1,062,821 46	
		$1,065,219 75

To the Board of Commissioners of the Sinking Funds of the City of Cambridge: —

Your Committee appointed to examine the accounts of the Treasurer of the Funds has carefully computed the interest, cash and bond transactions of the Treasurer for the year, independently of his books. The result, as shown by the following statement, agrees with his accounts and proves them to be correct.

MUNICIPAL FUND.

BOND ACCOUNT.

Amount of bonds in the Fund November 30, 1902	$1,021,500 00	
Amount of bonds purchased during the year	16,000 00	
		$1,037,500 00
Amount of bonds matured during the year		35,000 00
Amount of bonds (at par value) in the Fund November 30, 1903		$1,002,500 00

CASH ACCOUNT.

Cash on hand November 30, 1902	$73,755 09		
Cash received from City Treasurer from taxation	156,510 42		
Cash received from interest on investments	43,702 78		
Cash received from matured bonds	35,000 00		
		$308,968 29	
Cash paid for bonds purchased	$16,000 00		
Cash paid for premium on bonds purchased	178 30		
Cash paid for accrued interests on bonds purchased	311 50		
Amount paid to City Treasurer to redeem City Debt falling due this year	186,000 00		
		202,489 80	
Cash on hand November 30, 1903			106,478 49
Total amount of Municipal Sinking Fund, November 30, 1903			$1,108,978 49

WATER WORKS FUND.

BOND ACCOUNT.

Amount of bonds in the Fund, November 30, 1902	$831,900 00	
Amount of bonds purchased during the year	73,000 00	
Amount of bonds, at par value, in the Fund, November 30, 1903		$904,900 00

CASH ACCOUNT.

Cash on hand, November 30, 1902	$75,735 98		
Cash received from water rates, fines, etc.	123,145 78		
Cash received for interest on investments	34,437 99		
		$233,319 75	
Cash paid for bonds purchased	$73,000 00		
Cash paid for premium on bonds purchased	1,803 10		
Cash paid for accrued interest on bonds purchased	595 19		
		75,398 29	
Cash on hand, November 30, 1903			157,921 46
Total amount of the Water Works Sinking Fund, November 30, 1903			$1,062,821 46

FRANK A. ALLEN, JOHN C. BULLARD, *Committee on Accounts.*

The following are the investments belonging to the Municipal Funds: —

			Maturing		
Cambridge	City bonds	6s,	July 1, 1904	$111,000 00	
"	" "	6s,	July 1, 1905	63,000 00	
"	" "	3 1-2s,	Nov. 1, 1909	32,000 00	
"	" "	3 1-2s,	Nov. 1, 1911	36,000 00	
"	" "	3 1-2s,	Nov. 1, 1919	18,000 00	
"	" "	3 1-2s,	Nov. 1, 1921	27,000 00	
"	" "	3 1-2s,	Nov. 1, 1929	42,000 00	
					$329,000 00
Brockton	City bonds	4s,	June 1, 1904	4,000 00	
Quincy	" "	4s,	July 1, 1904	7,500 00	
Lawrence	" "	4s,	July 1, 1904	12,000 00	
Pawtucket, R. I.	" "	4s,	July 1, 1904	15,000 00	
Hopkinton	Town "	4s,	Sept. 30, 1904	5,000 00	
Brockton	City "	4s,	Dec. 1, 1904	4,000 00	
Quincy	" "	4s,	July 1, 1905	7,000 00	
Haverhill	" "	4s,	Oct. 1, 1905	50,000 00	
Brockton	" "	4s,	Dec. 1, 1905	4,000 00	
Gloucester	" "	4s,	May 1, 1906	2,000 00	
Quincy	" "	4s,	July 1, 1906	1,000 00	
Fitchburg R. R. Co.		4s,	April 1, 1907	50,000 00	
Watertown	Town "	3 1-2s,	Jan. 1, 1908 to 1922	85,000 00	
Somerville	City "	4s,	July 1, 1908	8,000 00	
Belmont	Town "	4s,	Oct. 1, 1908	15,000 00	
Medford	City "	4s,	Dec. 15, 1908	10,000 00	
New Bedford	" "	3 1-2s,	Feb. 1, 1909	40,000 00	
Pawtucket, R. I.	" "	4s,	July 1, 1909	30,000 00	
Beverly	" "	4s,	July 1, 1911	9,000 00	
Medford	" "	4s,	July 1, 1911	26,000 00	
Amounts carried forward				$384,500 00	$329,000 00

Amounts brought forward						$384,500 00	$329,000 00
Boston & Lowell R. R. Co.		4s,	Feb.	1,	1913	1,000 00	
Allegheny, Pa.	City bonds	3 1-2s,	Oct. 1,	1914-1915-1916		66,000 00	
Medford	" "	4s,	July	1,	1915	23,000 00	
Melrose	" "	4s,	Feb.	24,	1916	10,000 00	
Brockton	" "	3 1-2s,	July	1,	1916	5,000 00	
Boston & Lowell R. R. Co.		4s,	July	1,	1916	10,000 00	
Fitchburg R. R. Co.		4s,	July	1,	1916	10,000 00	
Marlborough	City bonds	4s,	July	1,	1918	10,000 00	
Medford	" "	4s,	Aug.	1,	1918	50,000 00	
Stoughton	Town "	4s,	June	1,	1920	2,000 00	
Reading	" "	4s,	June	1,	1922	5,000 00	
"	" "	4s,	June	1,	1923	5,000 00	
Medford	City "	4s,	July	1,	1923	2,000 00	
Old Colony R. R. Co.		4s,	Dec.	1,	1925	50,000 00	
Fitchburg R. R. Co.	"	4s,	Mar.	1,	1927	40,000 00	
							673,500 00
							$1,002,500 00
Cash in bank							106,478 49
							$1,108,978 49

The following are the investments belonging to the Water Loan Funds :—

Cambridge	City bonds	3 1-2s,	Maturing	Nov.	1, 1912	$20,000 00	
"	" "	4s,	"	Feb.	1, 1913	2,000 00	
"	" "	4s,	"	Oct.	1, 1916	65,100 00	
"	" "	3 1-2s,	"	Dec.	1, 1917	40,000 00	
"	" "	3 1-2s,	"	Nov.	1, 1919	20,000 00	
	" "	4s,	"	Nov.	1, 1920	5,000 00	
							$152,100 00
Lynn	City bonds	4s,	Maturing	Jan.	1, 1905	$19,000 00	
Wakefield	Town "	4s,	"	Oct.	1, 1905	5,000 00	
Brookline	" "	3 15-100	"	Apr.	1, 1906	20,000 00	
Providence, R. I.	City "	5s,	"	July	1, 1906	50,000 00	
Hull	Town "	3 1-2s,	"	Sept.	14, 1906	2,300 00	
Wakefield	" "	4s,	"	Oct.	1, 1906	6,000 00	
Malden	City "	4s,	"	Nov.	1, 1906	5,000 00	
Troy, N. Y.	" "	3 1-2s,	"	Nov.	15, 1906	2,000 00	
Wakefield	Town "	4s,	"	Oct.	1, 1907	6,000 00	
Malden	City "	4s,	"	Nov.	1, 1907	5,000 00	
Troy, N.Y.	" "	3 1-2s,	"	Nov.	15, 1907	2,000 00	
Hull	Town "	4s,	"	May	1, 1908	5,000 00	
Methuen	" "	4s,	"	Aug.	1, 1908	10,000 00	
Greenfield	" "	3 1-2s,	"	Oct.	15, 1908	6,000 00	
Malden	City "	4s,	"	Nov.	1, 1908	5,000 00	
Troy, N. Y.	" "	3 1-2s,	"	Nov.	15, 1908	2,000 00	
West Springfield	Town "	3 1-2s,	"	Dec.	1, 1908	12,000 00	
New Bedford	City "	3 1-2s,	"	Feb.	1, 1909	16,000 00	
Methuen	Town "	4s,	"	Aug.	1, 1909	15,000 00	
Amounts carried forward						$193,300 00	$152,100 00

Amounts brought forward						$193,300 00	$152,100 00
Greenfield	Town	bonds	3 1-2s,	Maturing	Oct. 15, 1909	6,000 00	
Malden	City	"	4s,	"	Nov. 1, 1909	5,000 00	
Troy, N. Y.	"	"	3 1-2s,	"	Nov. 15, 1909	2,000 00	
Taunton	"	"	3 1-2s,	"	June 1, 1910	21,000 00	
Somerville	"	"	4s,	"	July 1, 1910	8,000 00	
Gloucester	"	"	3 1-2s,	"	Oct. 1, 1910	10,000 00	
Greenfield	Town	"	3 1-2s,	"	Oct. 15, 1910	6,000 00	
Troy, N. Y.	City	"	3 1-2s,	"	Nov. 15, 1910	2,000 00	
Taunton	"	"	3 1-2s,	"	June 1, 1911	35,000 00	
Greenfield	Town	"	3 1-2s,	"	Oct. 15, 1911	12,000 00	
Newton	City	"	3 1-2s,	"	Nov. 1, 1911	12,500 00	
Troy, N. Y.	"	"	3 1-2s,	"	Nov. 15, 1911	2,000 00	
New Bedford	"	"	3 1-2s,	"	Mar. 1, 1912	15,000 00	
Pittsburg	"	"	3 1-4s,	"	Apr. 1, 1912	10,000 00	
Worcester	"	"	3 1-2s,	"	July 1, 1912	35,000 00	
Wakefield	Town	"	4s,	"	Oct. 1, 1912	1,000 00	
Gloucester	City	"	3 1-2s,	"	Oct. 1, 1912	10,000 00	
Lynn	"	"	3 1-2s,	"	Oct. 1, 1912	3,000 00	
Troy, N. Y.	"	"	3 1-2s,	"	Nov. 15, 1912	2,000 00	
Gloucester	"	"	3 1-2s,	"	Oct. 1, 1913	10,000 00	
Troy, N. Y.	"	"	3 1-2s,	"	Nov. 15, 1913	2,000 00	
" "	"	"	3 1-2s,	"	Nov. 15, 1914	2,000 00	
Lynn	"	"	4s,	"	Jan. 1, 1915	16,000 00	
Weymouth	Town	"	3 1-2s,	"	May 1, 1915	2,500 00	
Gloucester	City	"	3 1-2s,	"	Oct. 1, 1915	10,000 00	
Troy, N. Y.	"	"	3 1-2s,	"	Nov. 15, 1915	2,000 00	
Weymouth	Town	"	3 1-2s,	"	May 1, 1916	2,500 00	
Gloucester	City	"	3 1-2s,	"	Oct. 1, 1916	10,000 00	
Wellesley	Town	"	4s,	"	Mar. 1, 1917	2,000 00	
Waltham	City	"	4s,	"	Apr. 1, 1917	24,000 00	
Weymouth	Town	"	3 1-2s,	"	May 1, 1917	2,500 00	
Gloucester	City	"	3 1-2s,	"	Oct. 1, 1917	10,000 00	
Hallowell, Me.	City	"	4s,	"	Jan. 1, 1918	15,000 00	
Wellesley	Town	"	4s,	"	Mar. 1, 1918	1,000 00	
Weymouth	"	"	3 1-2s,	"	May 1, 1918	2,500 00	
Gloucester	City	"	3 1-2s,	"	Oct. 1, 1918	10,000 00	
Weymouth	Town	"	3 1-2s,	"	May 1, 1919	2,500 00	
"	"	"	3 1-2s,	"	May 1, 1920	2,500 00	
Penobscot Shore Line R.R. Co.			4s,	"	Aug. 1, 1920	25,000 00	
Fitchburg R.R. Co.			3 1-2s,	"	Oct. 1, 1920	50,000 00	
Quincy	City	bonds	4s,	"	May 1, 1923	2,000 00	
"	"	"	4s,	"	May 1, 1924	1,000 00	
"	"	"	4s,	"	May 1, 1925	2,000 00	
"	"	"	4s,	"	May 1, 1926	3,000 00	
"	"	"	4s,	"	May 1, 1927	3,000 00	
Attleborough	Town	"	4s,	"	July 1, 1927	10,000 00	
Quincy	City	"	4s,	"	May 1, 1928	3,000 00	
Winchester	Town	"	4s,	"	June 1, 1928	6,000 00	
Quincy	City	"	4s,	"	May 1, 1929	3,000 00	
Fall River	"	"	3 1-2s,	"	Nov. 1, 1929	75,000 00	
Quincy	"	"	4s,	"	May 1, 1930	3,000 00	
"	"	"	4s,	"	May 1, 1931	3,000 00	
Quincy	"	"	4s,	"	May 1, 1932	1,000 00	
Newton	"	"	4s,	"	Aug. 1, 1935	2,000 00	
Amounts carried forward						$711,800 00	$152,100 00

Amounts brought forward						$711,800 00	$152,100 00
Newton	City bonds	4s,	Maturing	July	1, 1936	11,000 00	
Grafton	Town "	3 1-2s,	"	July	1, 1937	1,000 00	
Old Colony R.R. Co.		4s,	"	Jan.	1, 1938	25,000 00	
Grafton	Town bonds	3 1-2s,	"	July	1, 1938	2,000 00	
"	" "	3 1-2s,	"	July	1, 1939	2,000 00	
							$752,800 00
							$904,900 00
Cash in bank							157,921 46
							$1,062,821 46

The bonded City Debt matures as follows, viz. : —

July 1, 1904, Sewer	6s	$295,000 00
July 1, 1904, Street Widening	6s	90,000 00
Aug. 1, 1904, City	4s	52,000 00
July 1, 1905, Sewer	6s	144,000 00
July 1, 1905, Street Widening	6s	14,000 00
Aug. 1, 1905, Cemetery	4s	65,000 00
Nov. 1, 1907, Sewer	4s	30,000 00
Nov. 1, 1907, Paving	3 1-2s	20,000 00
Nov. 1, 1907, Schoolhouse	3 1-2s	9,500 00
Nov. 1, 1907, Street	3 1-2s	11,000 00
Aug. 1, 1908, City	3 1-2s	4,900 00
July 1, 1909, City	3 1-2s	45,000 00
Nov. 1, 1909, Sewer	4s	22,000 00
Nov. 1, 1909, City	3 1-2s	32,000 00
May 1, 1910, Sewer	4s	15,000 00
Nov. 1, 1910, Cemetery	3 1-2s	7,000 00
Nov. 1, 1910, City	3 1-2s	36,000 00
July 1, 1911, Sewer	4s	15,000 00
July 1, 1911, Clay Land	4s	50,000 00
Nov. 1, 1911, City	3 1-2s	36,000 00
July 1, 1912, City	3 1-2s	38,000 00
Nov. 1, 1912, Clay Land	3 1-2s	20,000 00
Nov. 1, 1912, City	3 1-2s	20,000 00
Aug. 1, 1913, Clay Land	3 1-2s	10,000 00
July 1, 1914, Clay Land	3 1-2s	17,000 00
Aug. 1, 1914, Building	4s	118,000 00
Aug. 1, 1914, Street	4s	30,000 00
Oct. 1, 1915, Building	4s	60,000 00
Oct. 1, 1915, Street	4s	60,000 00
July 1, 1916, Building	4s	70,000 00
Oct. 1, 1916, Street	4s	137,000 00
Oct. 1, 1916, Building	4s	33,000 00
Oct. 1, 1916, Sewer	4s	75,000 00
Oct. 1, 1916, Schoolhouse	4s	6,000 00
July 1, 1917, Schoolhouse	3 1-2s	100,000 00
Oct. 1, 1917, Harvard Bridge	4s	10,000 00
May 2, 1918, Schoolhouse	3 1-2s	100,000 00
May 2, 1918, Street	3 1-2s	15,000 00
June 1, 1918, Schoolhouse	3 1-2s	50,000 00
July 1, 1918, Harvard Bridge	4s	100,000 00
Aug. 1, 1918, Schoolhouse	3 1-2s	142,000 00
Sept. 1, 1918, Harvard Bridge	4s	100,000 00
Amount carried forward		$2,304,400 00

Amount brought forward			$2,304,400 00
Mar. 1, 1919, Harvard Bridge		4s	115,000 00
July 1, 1919, Schoolhouse		3 1-2s	42,000 00
Nov. 1, 1919, Street		3 1-2s	5,000 00
Nov. 1, 1919, Schoolhouse		3 1-2s	13,000 00
Nov. 1, 1920, Harvard Bridge		4s	5,000 00
Nov. 1, 1920, Street		3 1-2s	21,000 00
July 1, 1921, Harvard Bridge		4s	60,000 00
July 1, 1921, Street		3 1-2s	30,000 00
July 1, 1921, Cambridge Bridge		3 1-2	24,000 00
July 1, 1921, Schoolhouse		3 1-2s	76,000 00
Nov. 1, 1921, Public Library		3 1-2s	27,000 00
July 1, 1922, Hospital		3 1-2s	6,000 00
July 1, 1922, Schoolhouse		3 1-2s	86,500 00
July 1, 1922, Street		3 1-2s	30,000 00
Oct. 1, 1922, Schoolhouse		3 1-2s	11,000 00
Nov. 1, 1922, Street		3 1-2s	14,000 00
Apr. 1, 1923, Street		3 1-2s	4,000 00
Apr. 1, 1923, Building		3 1-2s	3,000 00
Aug. 1, 1923, Harvard Bridge		4s	10,000 00
Oct. 1, 1923, Schoolhouse		3 1-2s	80,000 00
Nov. 2, 1923, Street		3 1-2s	12,000 00
Feb. 1, 1924, Park		4s	360,000 00
Aug. 1, 1924, Sewer		4s	75,000 00
Oct. 1, 1925, Sewer		4s	60,000 00
Aug. 1, 1926, Park		4s	100,000 00
Oct. 1, 1926, Park		4s	40,000 00
Nov. 1, 1929, Sewer		3 1-2s	42,000 00
July 1, 1930, Sewer		3 1-2s	100,000 00
Aug. 1, 1931, Sewer		3 1-2s	110,000 00
Aug. 1, 1932, Metropolitan Park Assessment		3 1-2s	46,000 00
Nov. 1, 1932, Sewer		3 1-2s	20,000 00
Apr. 1, 1933, Sewer		3 1-2s	40,000 00
Oct. 1, 1933, Sewer		3 1-2s	20,000 00
Aug. 1, 1935, Park		4s	100,000 00
Feb. 1, 1936, Park		4s	100,000 00
Sept. 1, 1937, Park		3 1-2s	100,000 00
Nov. 1, 1937, Charles River Improvement		3 1-2s	50,000 00
June 1, 1938, Park		3 1-2s	50,000 00
Aug. 1, 1938, Park		3 1-2s	50,000 00
Aug. 1, 1938, Charles River Improvement		3 1-2s	50,000 00
July 1, 1939, Cambridge Bridge		3 1-2s	50,000 00
Aug. 1, 1939, Park		3 1-2s	100,000 00
July 1, 1940, Cambridge Bridge		3 1-2s	100,000 00
July 1, 1940, Park		3 1-2s	50,000 00
Nov. 1, 1940, Park		3 1-2s	50,000 00
Feb. 1, 1941, Cambridge Bridge		3s	100,000 00
Oct. 1, 1941, Park		3 1-2s	100,000 00
Nov. 1, 1941, Cambridge Bridge		3 1-2s	100,000 00
July 1, 1942, Park		3 1-2s	48,000 00
Aug. 1, 1942, Cambridge Bridge		3 1-2s	100,000 00
Jan. 1, 1943, Cambridge Bridge		3 1-2s	50,000 00
Apr. 1, 1943, Cambridge Bridge		3 1-2s	50,000 00
Apr. 1, 1943, Park		3 1-2s	50,000 00
Aug. 1, 1943, Cambridge Bridge		3 1-2s	50,000 00
			$5,489,900 00

The Bonded Water Debt matures as follows: —

Nov. 1, 1906	3 1-2s	$43,000 00	
Oct. 1, 1907	4s	90,000 00	
Nov. 1, 1907	4s	22,000 00	
July 1, 1908	4s	46,000 00	
Aug. 1, 1908	4s	25,000 00	
July 1, 1909	4s	20,000 00	
May 2, 1910	4s	288,000 00	
July 1, 1910	4s	75,000 00	
Sept. 1, 1910	4s	125,000 00	
Jan. 1, 1911	4s	20,000 00	
Oct. 1, 1911	4s	35,000 00	
Jan. 1, 1912	4s	150,000 00	
May 1, 1912	4s	75,000 00	
Nov. 1, 1912	4s	45,000 00	
Feb. 1, 1913	4s	100,000 00	
Aug. 1, 1913	4s	50,000 00	
April 1, 1915	4s	200,000 00	
Aug. 1, 1915	4s	200,000 00	
April 1, 1916	4s	100,000 00	
July 1, 1916	4s	200,000 00	
Aug. 1, 1916	4s	100,000 00	
Oct. 1, 1916	4s	265,100 00	
April 1, 1917	3 1-2s	200,000 00	
July 1, 1917	3 1-2s	100,000 00	
Nov. 1, 1917	3 1-2s	75,000 00	
Dec. 1, 1917	3 1-2s	140,000 00	
May 2, 1918	3 1-2s	50,000 00	
June 1, 1918	3 1-2s	60,000 00	
Nov. 1, 1918	3 1-2s	50,000 00	
Nov. 1, 1919	3 1-2s	23,000 00	
Nov. 1, 1920	3 1-2s	30,000 00	
July 1, 1921	3 1-2s	30,000 00	
July 1, 1922	3 1-2s	13,500 00	
Nov. 1, 1922	3 1-2s	5,000 00	
April 1, 1924	4s	300,000 00	
			$3,350,600 00

City Bonds, amounting to $359,000.00 have been issued during this year. City Bonds to the amount of $186,000.00 matured this year and were paid from this Fund. The total amount of the Funded City Debt, exclusive of the Water Debt, now outstanding is $5,489,900.00. Deducting the present assets of this Fund, $1,108,978.49, leaves the net amount of the Bonded City Debt, not including the Water Debt, November 30, 1903, $4,380,921.51. This shows a net increase of $159,276.60 to the City Debt proper during the current year.

The property valuation of the City for 1903, real and personal, as found by the Assessors is, $104,771,910.00, an increase of $6,632,025.00 over the valuation in 1902. There will be due to this Fund from taxation in 1904, the sum of $157,397.58. During next year City Bonds to the amount of $437,000.00 will mature and will be paid from this Fund.

No Bonds on account of the Cambridge Water Works have been issued during this financial year. The total amount of the Funded Water Debt now outstanding is $3,350,600.00. Deducting from this the present assets of the Water Works Sinking Fund, $1,062,821.46, leaves the net Water Debt on November 30, 1903, $2,287,778.54, which shows a decrease during the current year of $155,185.58. There will be due to this Fund from Water Rates, etc., in 1904, the sum of $121,522.50.

FRANK A. ALLEN,
JOHN C. BULLARD,
GEORGE G. WRIGHT,
GEORGE H. HOWARD,
THOMAS F. ROYLE,
AUSTIN FORD,

Commissioners of the Sinking Funds of the City of Cambridge.

REPORT OF THE COMMITTEE ON FINANCE

The Committee on Finance for the year 1903 submits the customary annual report, it being for the financial year ending November 30th.

Below is given a condensed statement of the annual estimates as reported by this Committee at the beginning of the year.

ESTIMATED REVENUE, 1903.

City Department accounts	$140,450 00	
Water Department accounts	324,113 00	
Other revenue	89,500 00	
Cash in Treasury December 1, 1902	199,969 48	
		$754,032 48

AGGREGATE AMOUNT OF APPROPRIATIONS RECOMMENDED.

	Revenue.	Expenses.
City Department accounts	$140,450 00	$2,120,075 70
Water Department accounts	324,113 00	340,138 61
	$464,563 00	$2,460,214 31
Temporary Loan of 1901 payable from the taxes of 1902		20,000 00
		$2,480,214 31

GENERAL RECAPITULATION.

Total estimated expenses as before stated	$2,480,214 31
Estimated revenue and cash in Treasury	754,032 48
Leaving amount to be provided for	$1,726,181 83

To meet this requirement the report recommended as follows : —

1. — The issue of funded loans, viz : —		
Building Loan	$3,000 00	
Cambridge Bridge Loan	150,000 00	
Park Loan	50,000 00	
Improved Sewerage Loan	40,000 00	
Street Construction Loan	16,000 00	
Water Loan	5,000 00	
		$264,000 00
2. — Assessments upon the Polls and Estates of the inhabitants of Cambridge, etc., for the current year, being the amount required for the municipal expenses for the year		$1,462,181 83
		$1,726,181 83

The City Auditor's final monthly sheet for the financial year ending November 30, shows that the aggregations were so changed by additions and transfers as to make the following accounts, viz : —

City Department accounts	$2,275,265 96
Water Department accounts	373,061 89
Total appropriations	$2,648,327 85

The usual sub-committee was appointed to examine the condition of the treasury at the close of business November 30. Alderman J. Edward Barry, Councilmen Herbert A. Rhoades and James F. Quinn constituted the Committee. They subsequently submitted the following report : —

December 1, 1903.

To the Committee on Finance : —

GENTLEMEN : — The Sub-Committee appointed to count and examine the cash in the hands of the City Treasurer, at the close of business on November 30, 1903, would respectfully report : —

November 30, 1903. Actual cash and business checks in the City Treasurer's office amounted to . .		$6,757 46	
Also, a certificate from W. F. Earle, Cashier of First National Bank of Cambridge, Mass., showing a balance (at close of business November 30, 1903), to the credit of the City Treasurer, of	$57,315 00		
From this balance should be deducted checks Nos. 16461, 16500, 16501, 16502, 16557, 16580 and 16587, not presented to bank for payment, amounting to . .	$1,888 16		
Also, a check deposited in bank for credit of the Commissioners of Sinking Funds, wrongly credited by bank to account of City Treasurer	262 50		
		2,150 66	
Making a net balance in above bank, of . .		55,164 34	
Also, a certificate from F. B. Wheeler, Cashier of Lechmere National Bank of Cambridge, Mass., showing a balance (at close of business November 30, 1903), to the credit of the City Treasurer, of .		18,767 48	
Also, a certificate from A. M. Wheeler, Assistant Treasurer of Cambridge Trust Company, showing a balance (at close of business November 30, 1903), to the credit of the City Treasurer, of		72,687 53	
Making the total cash on hand			$153,376 81

December 19, 1903. After the above examination by your Committee, certain additional entries belonging to the financial year 1903 were made, the receipts and expenditures which these same represent being as follows : —

RECEIPTS.

Account of Overseers of the Poor Department : —		
City Home, sundries	$5 75	
Farm, receipts from sales of farm produce . .	253 70	
House offal, receipts from sales of offal . . .	502 89	
Amounts carried forward	$762 34	$153,376 81

Amounts brought forward	$762 34	$153,376 81
Account of Bridge Department — receipts on account of rent	50 00	
Account of Inspection of Milk and Vinegar Department — Fees	11 50	
Account of Public Property, City Buildings — Receipts for heating	1,365 00	
Account of Sealer of Weights and Measures Department — Fees	41 09	
From Commonwealth of Massachusetts: —		
Account of Grade Crossing, Prison Point Street — Reimbursement of amounts paid by City of Cambridge to sundry persons	15,000 00	
Account of Corporation Tax	80,545 57	
Account of National Bank Tax, being amount received for stocks of Massachusetts Banks outside of Campridge, owned by Cambridge residents	18,485 72	
Account of State Aid	14,553 00	
Account of Public Property, City Buildings: —		
Armory rents	1,033 32	
Account of Health Department — Contagious disease cases	237 29	
Account of Taxes, additional to entry of November 30, 1903, but not previously reported: —		
Taxes 1902	1,108 00	
Taxes 1903	44,859 16	
Street Watering, collections on 1903 taxes	386 50	
Interest, collections on 1903 taxes	65 43	
Treasury Department, summonses on 1903 taxes	11 80	
Account of Temporary Loan, receipts from sale of City Note, payable July 1, 1904, issued in anticipation of uncollected taxes of 1903	51,000 00	
A total of		229,515 72
Which amount, added to City Treasurer's cash balance of November 30, 1903, as above, makes a total of		$382,892 53

EXPENDITURES.

Authorized additional payments as of November 30, 1903, verified by your Committee, are as follows: —		
Account of Weekly Pay Roll, Draft No. 280	$11,587 57	
Account of sundry Auditor's Drafts: —		
Electrical Department — Wires	100 00	
Fire Department — General Expenses	375 00	
Police Department — General Expenses	890 00	
Overseers of the Poor Department — House offal	309 90	
Paid Commonwealth of Massachusetts: —		
Account of Armory Tax for 1903	9,766 68	
Account of Metropolitan Park Tax for 1903	34,541 40	
Account of Metropolitan Sewer Tax for 1903	79,836 65	
Account of National Bank Tax, being refund of taxes on non-resident owners of stock in Cambridge banks	6,740 92	
Account of State Tax for 1903	79,700 00	
Account of Water Works Department — Sinking Fund. Amount paid Commissioners of Sinking Funds, being excess of receipts over expenditures of Maintenance Accounts of Water Works	1,623 28	
Account of Abatements — Taxes. Assessors' certificates received and allowed on sundry taxes	4,522 91	
A total of		$229,994 31

Which, deducted from the foregoing total of receipts, shows a balance in City Treasurer's hands, as of November 30, 1903, of		$152,898 22
Your Committee would further state that we examined the total cash receipts and expenditures, as per City Treasurer's ledger, and find the same to be as follows: —		
Total cash receipts from all sources for the year ending November 30, 1903	$3,652,672 69	
To this should be added cash balance of November 29, 1902	257,194 90	
A total of		$3,909,867 59
Total cash expenditures for the year ending November 30, 1903, the same authorized by sundry drafts of the Mayor, which your Committee examined .		3,756,969 37
Which amount deducted from above total of receipts, shows a cash balance as of November 30, 1903, verified by our above report, of		$152,898 22

The Sub-Committee were enabled to further verify the above statement of receipts and expenditures, by comparison with the City Auditor's statement for December, 1903.

Your Committee also examined the securities belonging to the several funds held in trust by the City Treasurer — namely, the Cemetery Fund, $60,818.20; Sarah E. Russell Fund, $814 41, — and find same to be correct.

J. EDWARD BARRY,
HERBERT A. RHOADES,
JAMES F. QUINN,
Sub-Committee.

The consideration and acceptance of the foregoing report of the Sub-Committee brings to an end the work of the Committee on Finance of the year 1903. Nearly all the matters referred to its consideration were finally disposed of, and very few have been sent forward to the incoming year.

TIMOTHY W. GOOD,
HANS L. CARSTEIN,
J. EDW. BARRY,
JAMES T. BARRETT,
EDWARD E. CLARK,
HERBERT A. RHOADES,
HOWLAND DUDLEY,
JAMES F. QUINN,
HARRY N. STEARNS,
JULIUS MEYERS,
Committee on Finance.

REPORT OF THE CITY ENGINEER

OFFICE OF THE CITY ENGINEER,
CAMBRIDGE, MASS., December 1, 1903.

To the Honorable, the City Council:—

In compliance with the City Ordinances, I herewith submit a report of the work done by the Engineering Department and the Sewer Department during the financial year ending November 30, 1903, together with a detailed statement of expenditures under the several appropriation heads.

ENGINEERING DEPARTMENT.

L. M. HASTINGS, City Engineer to May 12th.
JAMES WILSON PIERCE, City Engineer from May 12th.

Principal Office Assistant,
GEORGE DAVIS.

Office Assistant and Draftsman,
HENRY T. BURRAGE.

Transitmen,
G. FRANK HOOKER, Street lines and grades.
FREDERIC E. EVERETT, Park work.

Rodmen,
FRED H. BURKE,
R. L. COOLIDGE,
G. H. CLOYES,
FRED D. SABIN.

Stenographer and Bookkeeper,
MARY E. ROWEN.

SEWER DEPARTMENT.

THEODORE L. PIKE, *Superintendent.*
ALBION H. CAIN, *Engineer.* (Resigned Sept. 26, 1903.)
FRANK B. WILLIAMS, *Engineer.* (Appointed Oct. 1, 1903.)
MARY E. ROWEN, *Clerk.*

FINANCIAL STATEMENT.

The expenditures of the Engineering and Sewer Departments, under the several appropriation heads as divided in the departmental accounts, are shown in the following summary:—

Engineering Department.

Appropriation, salaries and clerical assistance			$9,200 00
Expended:—			
Salaries City Engineer	$3,000 00		
Pay-roll, assistants	5,764 66		
Clerical	390 00		
		9,154 66	
Balance unexpended			*$45 34
Appropriation, Assessors' plans			$200 00
Expended:—			
Pay-roll		176 62	
Balance unexpended			*$23 38
Appropriation, other expenses			$700 00
Expenditures:—			
Car tickets	$140 00		
Drawing materials and supplies	102 38		
Plan case	80 00		
Telephone rental	75 92		
Camera and supplies	59 65		
Stationery and postage stamps	59 19		
Hardware, tools and supplies	39 65		
Printing and advertising	35 73		
Atlas	30 00		
Engineering literature	17 84		
Photographs	15 40		
Instruments and repairs	11 37		
Rubber stamps	9 94		
Plans	9 33		
Expressage	3 35		
		689 75	
Balance unexpended			*$10 25

Sewer Department.

Maintenance appropriation			$18,000 00
Expended:—			
Catch basin repairs:—			
Pay-roll	$460 41		
Brick	13 50		
Teaming	1 50		
		$475 41	
Amounts carried forward		$475 41	$18,000 00

Amounts brought forward . . .		$475 41	$18,000 00
Expended: —			
Cleaning catch basins: —			
Pay-roll	$2,168 00		
Teaming	3,294 00		
		5,462 00	
Cleaning sumps: —			
Pay-roll		228 78	
Cleaning and repairing gates: —			
Pay-roll	$1,207 96		
Repairing clocks	6 50		
		1,214 46	
Cleaning and flushing sewers: —			
Pay-roll	$590 37		
Rent of Healy machine . .	72 00		
		662 37	
Manhole repairs: —			
Pay-roll		81 70	
Miscellaneous items: —			
Car tickets	$60 00		
Hardware, tools and supplies .	238 93		
Park Department stock . .	7 45		
Office supplies	148 56		
Carriage hire	4 00		
Canvas covers	57 30		
Healy machine	750 00		
Hose, packing, etc. . . .	22 97		
Lumber, milling, etc. . . .	132 39		
Expressage	2 00		
Professional services . . .	2 00		
Oatmeal	12 75		
Rubber goods	147 85		
Accident pay-roll . . .	153 00		
		1,739 20	
Salaries: —			
Superintendent of Sewers . .	$2,000 00		
Clerk	390 00		
Time-keeper	416 00		
		2,806 00	
Sewer repairs: —			
Pay-roll	$949 15		
Damage	20 85		
Sewer pipe	105 24		
Repairs to water pipe . . .	3 17		
Teaming	10 00		
Bricks	121 50		
Cement	79 00		
		1,288 91	
Stable account: —			
Pay-roll	$728 00		
Harness and repairs . . .	47 85		
Horse	250 00		
Horse shoeing	148 50		
Hay, grain and straw . . .	679 99		
Carriage repairs	456 42		
Hire of horse	5 00		
Light	15 08		
Fuel	30 45		
		2,361 29	
Amounts carried forward . . .		$16,320 12	$18,000 00

Amounts brought forward		$16,320 12	$18,000 00
Expended: —			
Yard account: —			
Pay-roll	$726 25		
Brick	94 73		
Oil	31 25		
Cement	153 62		
Lumber	157 45		
Sand	78 30		
Pipe	48 19		
Castings	244 83		
Catch basin traps	25 00		
North River stone	120 00		
		1,679 62	
			17,999 74
Balance			*$0 26
Improved Sewerage: Appropriation			$47,848 24
Expenditures: —			
Hampshire and Cambridge Street System: —			
Pay-roll	$1,640 77		
Brick	294 07		
Cement	67 50		
Repairing water pipe	15 92		
Rent of engine	56 00		
Expressage	25		
Freight and unloading cars	121 38		
Fuel	23 06		
Gravel, stone and sand	171 55		
Hardware, tools, etc.	25 10		
Lumber, milling, etc.	15 56		
Oil	12 00		
Pipe	63 40		
Street department	29 73		
Teaming	444 50		
		$2,980 79	
Banks Street System: —			
Pay-roll	$10,531 94		
Pipe	1,727 49		
Cement	693 25		
Gravel, sand and stone	639 84		
Brick	605 25		
Lumber, milling, etc.	553 02		
Castings	156 42		
Hardware, tools, etc.	127 05		
Repairs to water pipe	50 94		
Manufacturing and repair'g tools	47 04		
Iron work	33 67		
Fuel	31 09		
Teaming	28 78		
Oil	26 40		
Repairing crossing	16 88		
		15,269 06	
Franklin Street System: —			
Pay-roll	$20,249 84		
Gravel, sand and stone	1,870 76		
Pipe, etc.	1,371 18		
Lumber, milling, etc.	1,328 02		
Amounts carried forward	$24,819 80	$18,249 85	$47,848 24

Amounts brought forward . . .	$24,819 80	$18,249 85	$47,848 24
Expenditnres: —			
Cement	1,257 50		
Brick	1,062 00		
Teaming	588 12		
Hardware, tools, etc. . . .	282 54		
Castings	249 80		
Rent of engine	140 00		
Fuel	86 12		
Manufacturing and repairing tools	75 86		
Iron work	64 79		
Repairs to water pipes . .	50 37		
Oil	25 65		
Car service charges . . .	10 00		
Repairing crossings . . .	7 42		
Rent of lot No. 77 Kinnaird Street	5 00		
Packing	1 71		
		$28,726 68	
Elm Street Sewer: —			
Pay-roll	$667 76		
Pipe	121 68		
Brick	27 00		
Lumber	20 66		
Teaming	7 50		
		844 60	
			47,821 13
Balance			$27 11
Construction General: Appropriation . . .			$27,500 00
Expenditures: —			
Rogers Street Sewer: —			
Pay-roll	$618 55		
Pipe	95 36		
Piles	43 75		
Teaming	15 50		
Iron work	14 02		
Brick	13 73		
Hardware, tools, etc. . . .	3 22		
Fuel	2 13		
		$806 26	
Henderson Court Sewer: —			
Pay-roll	$236 88		
Pipe	92 00		
Brick	13 72		
Teaming	12 50		
Hardware	3 23		
		358 33	
Front Street Sewer: —			
Pay-roll	$206 25		
Pipe	70 80		
Gravel	58 20		
Lumber	18 77		
Teaming	1 50		
		355 52	
Lake View Avenue: —			
Pay-roll	$447 43		
Pipe	107 60		
Brick	27 00		
Teaming	3 00		
		585 03	
Amounts carried forward . . .		$2,105 14	$27,500 00

Amounts brought forward . . .		$2,105 14	$27,500 00
Expenditures: —			
Franklin Street: —			
Pay-roll	$177 85		
Teaming	12 50		
Pipe	70 94		
		261 29	
Washington Street System: —			
Pay-roll	$16,235 78		
Lumber and milling . . .	1,466 86		
Cement	1,248 50		
Pipe, etc.	925 44		
Brick	663 84		
Gravel, sand, etc. . . .	661 16		
Rent of engines and pump . .	226 00		
Hardware, tools, etc. . . .	194 48		
Fuel	170 11		
Teaming	155 20		
Repairs to water pipes . .	88 20		
Manufacturing and repairing tools	77 11		
Disposal of waste material . .	60 00		
Oil	51 50		
Rubber goods	49 35		
Iron work	12 97		
Castings	12 00		
Rent of Carson machine tubs .	12 00		
Oatmeal	6 75		
		22,317 25	
Catch basins: —			
Pay-roll	$343 10		
Brick	135 00		
Teaming	2 25		
		480 35	
Rindge Avenue Sewer: —			
Pay-roll	$91 70		
Brick	13 50		
Pipe	25 31		
		130 51	
General Account: —			
Pay-roll	$53 50		
Castings	626 45		
Cement	195 88		
Pipe	888 35		
Brick	13 72		
Lumber	60 10		
Teaming	3 75		
Refund on assessment . .	2 00		
Rubber boots	18 00		
		1,861 75	
			27,156 29
Balance			*$343 71
Dredging at outlet of Bridge St. sewer: Appropriation			$2,750 00
Expenditures: —			
Dredging			2,672 78
Balance			*$77 22

* Balance transferred to Contingent Fund.

OFFICE.

The yearly summary of work done is as follows : —

FOR STREET DEPARTMENT.

Number of surveys	4
Number of street lines given	96
Number of street grades given	94
Number of streets on which paving, curb, etc., was measured	76
Number of assessments prepared	338
Number of plans or profiles prepared	21

FOR SEWER DEPARTMENT.

Number of surveys	2
Number of lines given	300
Number of grades given	340
Number of sewers measured	38
Number of sewers assessed	25
Number of sewer assessments prepared	31
Number of plans or profiles prepared	28

FOR WATER WORKS.

Number of surveys	1
Number of lines given	1
Number of grades given	1
Number of plans or profiles made	0

FOR PARK DEPARTMENT.

Number of surveys made	10
Number of grades given	50
Number of plans or profiles made	0
Number of lines given	20

FOR PRIVATE PARTIES.

Number of street lines given	73
Number of street grades given	27

MISCELLANEOUS WORK.

Number of surveys	58
Number of lines or levels given	93
Number of houses measured	367
Number of plans or profiles prepared	126
Number of pipe plans prepared	82

There are now on file in the office 8,427 plans.

The preparation of plans showing the location of conduits in the streets has been continued during the year whenever it has been possible. This is a very important work and it is unfortunate that it could not be carried on faster than has been possible this year with the force available for routine work.

The following table shows the locations approved during the year under Section 10, of Chapter 25, of the Revised Ordinances of 1892 as amended in July, 1902: —

TABLE OF LOCATIONS APPPOVED FOR STRUCTURES IN THE STREETS.

Applicant.	Street.	From	To	Distance from Street line.	Size of Pipe.
Cambridge Water Works.	Athens.....	Mt. Auburn..	Southerly	14 ft. from E. line	4 in.
" Gas Light Co.	Charles	Third.....	Sixth.....	13 " " S. "	4 "
" " " "	Crescent av.	Raymond.....	Walden.....	16 " " N. "	4 "
" " " "	Columbia	Mass. av.....	Cambridge.....	12 " " W. "	6 "
" " " "	Fairfield.....	Rindge av ...	Pemberton.....	13 " " E. "	3 "
" " " "	Fifth	Cambridge....	Winter.....	17 " " W. "	4 "
" " " "	Hampshire .	Windsor.....	Webster av. ...	17 " " N. "	6 "
" " " "	Hampshire..	Inman.....	Somerville line.	14 " " S. "	6 "
" Water Works.	Harvard.....	Quincy.....	Hancock.....	17 " " S. "	12 "
" Gas Light Co.	Holworthy...	Belmont.....	Mt. Auburn. ...	19 " " W. "	6 "
" " " "	Locke.....	Meacham	Frank	12 " " N. "	3 "
" " " "	Main.....	Washington..	Pelham	13.5 " " N. "	3 "
" " " "	Main.	Washington..	Third	19 " " S. "	8 "
" " " "	Pemberton..	Rindge av....	Fairfield	12 " " E. "	3 "
" Water Works.	Portland	Cambridge....	Binney	15 " " W. "	12 "
" Gas Light Co.	Portland	Cambridge....	Binney	18 " " W. "	6 "
" Gas Light Co.	Raymond....	Walden.....	Northerly	16 " " E. "	4 "
" Water Works.	Reservoir....	Vassal lane...	Huron av.....	12 " " W. "	24 "
" Gas Light Co.	"	Vassal lane...	" "	19 " " W. "	12 "
" " " "	"	Highland.....	" "	19 " " W. "	4 "
" " " "	Royal av.....	Concord av...	" "	16 " " W. "	4 "
" Water Works.	Royal av.....	Concord av...	" "	13 " " W. "	6 "
" Water Works.	Sargent.....	Rindge av....	Railroad st.....	11 " " W. "	4 "
" Gas Light Co.	Sargent.....	Rindge av....	Railroad st.....	8 " " W. "	4 "
" Water Works.	Second	Binney	Charles.....	15 " " E. "	6 "
" Water Works.	Second	Thorndike	Charles.....	15 " " E. "	6 "
" Gas Light Co.	Sixth.....	Cambridge....	Spring	17 " " W. "	6 "
" " " "	Sixth.....	Binney	Spring	18 " " W. "	6 "
" " " "	Warren	Cambridge....	Somerville line.	10 " " W. "	4 "
" " " "	Webster av..	" ...	Somerville line.	12.5 " " E. "	4 "
" " " "	Willow	" ...	Webster av.....	10 " " W. "	4 "

STREETS.

The Street Department has during the past year rebuilt River Street by day labor, laying vitrified brick pavement from Kinnaird Street to Fairmont Street. The construction was under the same specifications used in the previous pavements in the City, a six-inch American cement concrete base with a two-inch sand cushion, using Portland cement grout with pitch expansion joints. A total of 3,330 square yards of pavement was laid.

This change from a macadam surface to brick pavement necessitated a lowering of the car tracks, which work was carried on in conjunction with the Street Department work.

Six hundred and twenty-five square yards of granite block pavement was laid on the north side of Cambridge Street between Prospect Street and Oak Street, which also required the lowering of the Boston Elevated R. R. Company's tracks.

SCHEDULE OF SIDEWALK MEASUREMENTS CERTIFIED TO THE STREET DEPARTMENT.

Street.	From	To	Straight Curb.	Circular Curb.	No. of Bricks.	Square yards brick paving back of Street line.
Allen st. (E. S.)	Orchard st.	Southerly	147.2		3,079	
Antrim st. (W. S.)			211.4		6,749	2.1
Auburn st.	Sidney st.	Westerly	102.9	9.2		
Berkshire st. (W. S.)	Plymouth st.	Northerly	99.9			
Brattle st. (N. S.)	at old Fresh Pond	lane			1,464	
Cambridge st. (S. S.)	corner.	Webster av.			2,100	
Cambridge st. (S. S.)	Prescott st.	Felton st.	162.8	13.0	17,745	5.9
Concord av. (N. S.)	Huron av.	Easterly	57.2			
Cottage Park av.	Mass. av.	Westerly	597.0	41.5		
Creighton st. (E. S.)			617.4		19,020	
Elm st. (W. S.)	Cambridge st.	Northerly	35.6		1,134	
Fayerweather st. (E. S.)	Vassal lane	Huron av.	617.4	70.0		
Fayerweather st. (W. S.)	Vassal lane	Huron av.	678.3	19.5		
Fairmont av. (E. S.)	opposite	Fairmont av.	55.7			
Fifth st. (W. S.)	Spring st.	Vine st.	257.5	12.7		
Frank st. (S. S.)	Mass. av.	Locke st.	198.9	9.6	7,432	23.5
Green st. (N. S.)	Pleasant st.	Vernon st.	281.6		10,211	
Hampshire st. (N. S.)	Portland st.	Easterly	449.1			
Hampshire st., both sides	Norfolk st.	Tremont st.	188.4		3,534	26.0
Hampshire st. (S. S.)	Murdock st.	Westerly	102.1	10.2	5,454	4.0
Hancock st. (W. S.)	Center st.	Northerly			5,950	
Harvard st. (S. S.)	Sixth st.	Westerly	259.6			
High st.			50.1			
Howard st. (W. S.)	Grigg st.	Kinnaird st.	561.6	63.2		
Huron av. (N. S.)	Raymond st.	Westerly	217.0			
Kinnaird st. (W. S.)	River st.	Pleasant st.			1,480	
Kinnaird st., Nos 115, 117			150.0		2,430	
Line st. (S. S.)	near Leonard av.	Kirkland st.	793.4	60.2		
Line st. (N. S.)	Cambridge st.	Westerly	98.3			
Locke st. (S. S.)	Woodbridge st.	Easterly	81.0			
Mt. Auburn st.	opposite	Gibson st.			6,600	
Ninth st., both sides	Otis st.	Spring st.			29,011	119.2
Ninth st. (E. S.)	Otis st.	Southerly			4,143	
Pearl st. (E. S.)	Henry st.	Granite st.	192.0			
Pemberton st. (W. S.)	Ridge av.	Fairfield st.	373.7		18,310	3.4
Pine st.	Harvard st.	Washington st.	806.0		22,045	1.3
Plymouth st. (S. S.)	Portland st.	Westerly			690	
Portland st. (W. S.)	Broadway	Northerly			70,213	46.0
Prescott st. (E. S.)	Broadway	Cambridge st.	297.3		10,174	1.9
Ridge av. (N. S.)	Mass. av.	Westerly	118.1		7,443	
River st. (S. S.)	Kinnaird st.	Westerly			3,980	
Seventh st., both sides	Thorndike st.	Spring st.	363.1		12,198	
Sherman st. (W. S.)	Garden st.	Walden st.	731.9	57.1		
Sidney st. (W. S.)	Auburn st.	Franklin st.	190.6			
Sixth st. (W. S.)	Broadway	Harvard st.			16,440	
Spring st. (N. S.)	Ninth st.	Easterly			4,885	20.6
Spring st. (N. S.)	Seventh st.	Westerly			1,532	2.0
Thorndike st.	Sixth st.	Seventh st.			5,300	
Thorndike st. (S. S.)	Ninth st.	Easterly			1,787	
Union st., both sides	Hampshire st.	Lincoln st.	1236.3	44.8		
Vine st. (N. S.)	Fifth st.	Easterly	94.6		1,020	
Walden st. (E. S.)	Sherman st.	Northerly	265.0			
Warland st. both sides	Pleasant st.	River st.	289.1	144.8		
Webster av. (W. S.)	Cambridge st.	Southerly			4,978	
Windsor st. (E. S.)	Washington st.	Northerly			1,383	
Windsor st. (E. S.)	Harvard st.	Northerly	90.4		5,005	
Woodbridge st. (E. S.)	Mass. av.	Locke st.	323.4	9.2		
Wright st. (W. S.)	Hudson st.	Martin st.			13,585	2.0

SCHEDULE OF GUTTER STONE MEASURED AS LAID AND MEASUREMENT CERTIFIED TO THE STREET DEPARTMENT.

Street.	From	To	Square yards.
Allen st. (E S.)			49.1
Berkshire st. (W. S.)	Plymouth st	Northerly	33.8
Cambridge st. (S. S.)	Prescott st	Felton st	102.8
Concord av. (N. S.)	Huron av. (N. S.)	Easterly	19.7
Cottage Park av			212.7
Creighton st. (E. S.)			217.2
Fairmont st. (E. S.)	opposite	Fairmont av	18.9
Fayerweather st. (W. S.)	Vassal lane	Huron av	233.7
Fifth st	Vine st	Spring st	90.5
Frank st. (S. S.)	Massachusetts av	Locke st	47.9
Hampshire st (N. S)	Norfolk st	Tremont st	34.0
Hampshire st. (N. S.)	Portland st	Broadway	149.7
High st. (S. S.)			16.7
Howard st. (W. S.)	Kinnaird st	Grigg st	210.1
Huron av. (N. S.)	Raymond st	Westerly	72.3
Kinnaird st. (S. S.)	near	Putnam av	50.1
Line st. (N. S.)	Cambridge st	Westerly	29.4
Line st. (S. S.)	Leonard av	Kirkland st	286.6
Locke st. (S. S.)	Woodbridge st	Easterly	31.5
Pearl st. (E. S.)	Granite st	Henry st	70.0
Pemberton st. (W S.)			126.5
Prescott st. (E. S.)	Cambridge st	Broadway	94.0
Riedesel av. (W. S.)	Brattle st	Brewster st	119.7
Rindge av. (N. S.)	Massachusetts av	Westerly	47.5
Sherman st. (W. S.)	Garden st	Walden st	274.6
Union st., both sides	Hampshire st	Lincoln st	30.5
Walden st. (E S.)	Sherman st	Northerly	88.4
Warland st., both sides	Pleasant st	River st	163.1
Woodbridge st. (E S.)	Massachusetts av	Locke st	124.4

SCHEDULE OF ARTIFICIAL STONE WALKS MEASURED AND MEASUREMENTS CERTIFIED TO THE STREET DEPARTMENT.

Street.	From	To	Square feet.
Auburn st. (S. S.)			287.0
Auburn st. (N. S.)	Sidney st	Westerly	484.6
Cambridge st. (N. S.)	at Holy Ghost	Hospital	3,054.0
Concord av. (N S.)	Huron av	Easterly	635.3
No. 44-50 Creighton st			463.7
Franklin st. (S. S.)	Sidney st	Westerly	685.0
Highland st. (N S.)	Reservoir st	Easterly	1,016.8
Huron av. (E. S.)	Concord av	Northerly	434.8
Lee st. (W. S.)	Massachusetts av	Northerly	764.3
Nos. 5, 7, 9 Linden st. (W. S.)			529.7
Massachusetts av. (S. S.)	Vassar st	Wellesley st	3,162.0
Massachusetts av. (N. S.)	Lee st	Westerly	1,228.7
Porter road			266.2
Raymond st. (W. S.)	Huron av	West Bellevue av	572.2
Reservoir st. (E. S.)	Highland st	Northerly	1,298.6
Sidney st. (W. S.)	Auburn st	Franklin st	1,216.8
Third st. (W. S.)	Binney st	Northerly	910.0

PLANS WHICH HAVE BEEN APPROVED BY THE BOARD OF SURVEY DURING THE YEAR.

Name of Street.	From	To	Date.
Acacia street, extension to Hilliard street	Ash street	Hilliard street	Nov. 9, 1903
Ash street, relocation	Brattle street	Mount Auburn street	Oct. 19, 1903
Athens street, extension	Southerly end	Grant street	Oct. 19, 1903
Brown street, widening and laying out	Brattle street	Foster street	Nov. 9, 1903
Madison street, laying out	Concord avenue	Garden street	Oct. 19, 1903
Pioneer street, laying out	Broadway	Main street	Nov. 9, 1903
Rutland street, laying out	Shepard street	Langdon street	Nov. 9, 1903
Stearns street, laying out	Sherman street	Passageway	Nov. 9, 1903
Van Norden street, laying out	Middlesex street	Yerxa road	Nov. 9, 1903
Wilbur street, laying out	Harvey street	Southerly, 410 feet	Nov. 9, 1903
Yorktown street, laying out	Massachusetts avenue	Seven Pines street	May 14, 1903

LIST OF STREETS, PLANS OF WHICH HAVE BEEN APPROVED, FOR SEWER PURPOSES, BY THE BOARD OF SURVEY DURING THE YEAR.

Front street	Massachusetts avenue	Windsor street	May 14, 1903
Wadsworth street	Main street	Southerly, 63.8 feet	May 14, 1903

STREETS LAID OUT AND ACCEPTED DECEMBER 1, 1902, TO DECEMBER 1, 1903

LOCATION OF STREET.						PLAN.	
Name.	From	To	Length in Feet.	Width in Feet.	Date of Acceptance.	Made by	Date.
Amherst street	Wadsworth street	Pelham street	891.0	60	Dec. 13, 1902	E. F. Bowker	Oct. 2, 1902
Amherst street	Pelham street	Massachusetts avenue.	1,664.0	60	Dec. 13, 1902	City Engineer	Nov. 3, 1902
Carleton street	Deacon street	Amherst street	487.6	50	Dec. 13, 1902	E. F. Bowker	Oct. 2, 1902
Clifton street	Harvey street	Dudley street	645.0	40	Dec. 27, 1902	City Engineer	Nov. 22, 1900
Dudley street	Clifton street	Montgomery street	800.4	40	Dec. 27, 1902	City Engineer	Sept. 8, 1902
Hayward street	Main street	Amherst street	505.7	40	Dec. 13, 1902	E. F Bowker	Oct. 2, 1902
Madison street	Concord avenue	Garden street	693.0	30	Oct. 28, 1903	City Engineer	April 16, 1903
Royal avenue	Huron avenue	Concord avenue	543.5	40	Dec. 27, 1902	W. A. Mason & Son	Aug. 8, 1902
Wadsworth street	Esplanade	near Main street	647.0	40	Dec. 27, 1902	E. F. Bowker	Oct. 2, 1902
Yorktown street	Massachusetts avenue.	Seven Pines avenue	560.2	40	May 20, 1903	W. A. Mason & Son	Jan. 28, 1903

Total length of accepted streets December 1, 1902, 95.399 miles.
Total length of streets accepted from December 1, 1902, to December 1, 1903, 7,437.4 feet or 1.409 miles.
Total length of accepted streets December 1, 1903, 96.808 miles.

BRIDGES.

The annual inspection of the bridges under the care of the Street Department shows that the First Street Bridge should be thoroughly overhauled during the coming season, notwithstanding possible changes in its construction due to the building of the approach to the new Cambridge Bridge. The header on the south leaf of the draw and some of the tennons on the stringers are decayed and should be attended to at once. The header on the north side of the draw is cracked through at the fourth timber from the west side and should be replaced The roadway will need replanking and the capping on the fenders should be replaced.

The Third Street Bridge should be painted and some of the fence boards replaced, in connection with other minor repairs.

The floor of the Sixth Street Bridge is apparently sound but some of the stringers south of the draw are beginning to rot. One draw timber is badly rotted as are some of the tennons in the header. The split header has been bolted, but is not in good condition.

Gases from passing locomotives continue to eat away the webs and flanges of the iron work of the Walden Street Bridge wherever it is not protected. The wooden boxes which were placed about a year ago to protect the steel have proved very effective and show scarcely a trace of abrasion even where most exposed to the exhaust from the engines.

Two of the boxes have been displaced and should be replaced at once. The bottom members of the fence have been badly eaten by locomotive gases and are in need of scraping and painting. The entire bridge should be painted.

The Huron Avenue Bridges are in good condition except that on both the planking on the roadway and sidewalks should be renewed and considerable painting done. Several of the sheets of lead placed as protection for the steel on the bridge across the Fitchburg Raiload, Watertown Branch, are out of position and need attention.

The masonry bridge on Massachusstts Avenue crossing Alewife Brook is in good repair, the only work needed being the scraping and painting of the iron fence which forms the guard rail. The retaining wall on the north-east side of Massachusetts Avenue should be repointed at one place, and on the south-west side a small portion needs immediate repair, as some of the stones have fallen from their places allowing the coping to settle and making the fence unsafe.

The timbering of the Wellington Bridge is in good condition and the flooring sound though somewhat worn, the abutements are in a very dilapitated state; when any work becomes necessary on the bridge it should be

replaced by a new bridge of another class. The fence on the bridge is sound and whole, but on the approach to the bridge is in bad repair and needs renewal.

LECHMERE CANAL BRIDGE.

During the last session of the Legislature there was a bill passed entitled "An act to authorize the City of Cambridge to construct a bridge across Lechmere Canal in continuation of Commercial Avenue in that city." Chapter 372 of the Acts of 1903.

Two plans have been submitted to the Board of Harbor and Land Commissioners for their approval of the class of structure and location of draw in same. The plan which the City will try to have approved provides for a draw of the bascule type with a clear water way of forty feet, the approaches to be filled solid out to the draw. The alternate plan is for steel approaches with the same type of double leaf bascule draw.

SEWERS.

The City has at present 123.416 miles of sewers in the sewerage system which have cost to date $1,701,485.04; 14,398.3 feet or 2.727 miles were built during the year. The total expenditure for construction, exclusive of catch basins, was $74,497.07. These figures include the expenditures and length of the Improved Sewerage System.

The total expenditures under the appropriation head "Construction General" was $27,156.29 and 4,098.3 feet of sewer and thirteen catch basins were built. The catch basins cost $480.35.

The total expenditure under the appropriation "Improved Sewerage" was $47,821.13. This includes $2,980.79 expended on Hampshire Street district which does not show in length constructed. The length constructed during the year was 10,300 feet or 1.951 miles.

All the sewers have been built by day labor by the Superintendent of Sewers under the general direction of the City Engineer.

MAINTENANCE.

The usual attention has been given to the catch basins, sumps, sewer gates and manholes. In connection with this work forty eight, catch basins have been repaired at a total expense of $795.55; 5,781 loads of material were removed from 2,397 catch basins during the year, costing $5,355.50, and seven manholes repaired at a cost of $81.70.

Little work has been done on flushing during the year, as in June due to the scarcity of water and at the request of the Superintendent of

the Water Works, this work was discontinued when only $67.25 had been spent, against a usual expenditure of about $550 yearly.

Five hundred ninety-five dollars and twelve cents was expended in cleaning the sewers. A patented machine was bought at an expense of $750 to be used in this work.

The accompanying table gives a list of the complaints received at this office, reporting the improper working of the sewers and the action taken in each case.

LIST OF COMPLAINTS OF IMPROPER WORKING OF SEWERS.

Date.	Street.	Reported by	Complaint.	Cause of Trouble.	Action Taken.
1903					
Jan. 9	Milton	.....	Bad odor.....	.....	Flushed.
Feb. 9	Franklin ...	S. McCulloch.	Obstruction in sewer.	Dirt	Cleaned.
Feb. 19	Franklin ...	E. Moore.....	Obstruction in sewer.	.....	Flushed & cleaned.
Mar. 31	Norfolk.....	P. Burns.....	Obstruction in sewer.	....	Flushed.
Apr. 15	Elm	Brosnahan ...	Sewage in cellar.....	....	Flushed & cleaned.
Apr. 15	Sherman ...	R. Welsh.....	Water in cellar.....	.....	Flushed & cleaned.
May 1	Vine	Mr. Vallely...	Obstruction in sewer.	Broken coverstone.	Replaced.
May 7	Milton	M. J. Hurd...	Obstruction in sewer.	.....	Flushed.
July 2	King pl.....	C. Smith.....	Obstruction in sewer.	....	Flushed.
Sept. 29	Thorndike..	W. Mahoney.	Obstruction in sewer.	Broken coverstone.	Replaced.
Oct. 6	Kirkland....	Mr. Childs ...	Obstruction in sewer.	Trouble in private drain.	
Nov. 7	Norfolk. ...	Mr. Coveney.	Obstruction in sewer.	Lack of flushing...	Cleaned.
Nov. 10	Third st. pl.	Bay State Fuel Co.....	Obstruction in sewer.	Trouble in private drain.	
Nov. 18	Webster av.	Williams	Obstruction in sewer, sewage in cellar....	Broken coverstone.	Replaced.
Nov. 28	Sacramento	Baumeister...	Sewage in cellar.....	Trouble in private drain.	

Repairs were made on the sewer in Hancock Street between Franklin Street and Green Street where the brick arch was badly out of shape.

Numerous complaints had been received about the sewer in Seventh Street between Cambridge Street and Otis Street and a petition was presented to the Board of Alderman for a new sewer. Investigation showed that the existing cement pipe sewer was beyond repair, and it was replaced by a 10-inch Akron pipe at a lower grade. In addition to the above, only inexpensive minor repairs were necessary during the year.

Permits to drain layers were issued during the year as follows : —

112 permits for repairs.
163 permits for entrances to "combined" sewers.
8 permits for entrances to "sanitary" sewers.
5 permits for entrances to "storm" sewers.

IMPROVED SEWERAGE.

Since authority was granted the City to borrow outside the debt limit for the purpose of building a separate system of sewers, there has been expended on the improved sewerage account, by years, as follows : —

	Appropriation.	Expended.	Balance.
1899 . . .	$100,000 00	$42,989 24	$57,010 76
1900 . . .	99,010 76	73,619 11	25,391 65
1901 . . .	125,391 65	76,546 14	48,845 51
1902 . . .	68,845 51	61,997 27	6,848 24
1903 . . .	47,848 24	47,821 13	27 11
Total expenditures . . .		$302,972 89	

The $47,821.13 spent this year has been used to complete the Hampshire Street District, build the Banks Street District and part of the Franklin Street District.

HAMPSHIRE STREET DISTRICT.

The work in this district which was completed in the month of December, 1902, was merely the completion and closing up of work, an account of which was included in the last annual report.

BANKS STREET DISTRICT.

In response to a largely signed petition, the City Council ordered, under date of February 7, 1903, sewers built in this district, and starting on February 16th, the work was carried through to completion on May 26th, sewers having been built in Athens Street, Athens Terrace, Banks Street, Beaver Street, Cowperthwaite Street, DeWolf Street, Flagg Street, Grant Street and Warren Place, as shown in the sewer table.

The system is designed to utilize the old combined sewers as storm sewers, the new construction being wholly sanitary with the exception of a necessary change in Beaver Street, causing the construction of ninety-three feet of combined sewer in addition to the 420.8 feet of new sanitary sewer.

Four thousand, two hundred forty-one and four-tenths feet of Akron pipe sewers were laid, costing complete $15,269.06. This district was connected with the Metropolitan Sewer at Flagg Street where a new connection was made and considering it was to be an entirely separate system with no storm water connections, the Metropolitan Water and Sewer Commission allowed a very high regulation, so high in fact that except in case of break down on the Metropolitan Sewer there is little likelihood of the regulator closing.

FRANKLIN STREET DISTRICT.

The Franklin Street District connects through Flagg Street with the Banks Street District and is the low section of Ward 7, bounded by Putnam Avenue, Western Avenue, Pleasant Street and Massachusetts Avenue. It was impossible under the appropriation to complete the work, but it was carried as far as the appropriation would allow, and sewers were built in Flagg Street, Franklin Street, Green Street, Hancock Street, Kinnaird Street, Putnam Avenue and Soden Street.

Through the high ground in Flagg Street across Putnam Avenue and for 205.4 feet down Kinnaird Street the cut to the sanitary sewer was 27 feet through clay soil. The design for the complete system of sewers through this district includes a storm sewer directly over the sanitary sewer, through this hill, and it was thought advisable to build it at this time, although it may not be used for some years to come. Through this deep cut a third sewer is maintained to obivate the difficulty of connecting with the very deep sanitary sewer. All the sewers in this district except those in Flagg Street and Putnam Avenue and in Kinnaird Street from Putnam Avenue to Howard Street are of Akron pipe. Under drains were necessary in all the streets. Through the lower section of Kinnaird Street and part of Soden Street, the grade of the sewer was above the bottom of the marsh mud. This mud was removed to the underlying sand, and the trench refilled to sewer grade with sand or gravel.

ELM STREET SEWER.

Elm Street branch of the Hampshire Street system, improved sewer, was built this year to give good safe drainage to the new Elm Street Schoolhouse, now under construction. Details of the construction are to be found in the sewer table.

CONSTRUCTION GENERAL.

Rogers Street, Henderson Court, Front Street, Lake View Avenue and Rindge Avenue, were short pieces of Akron pipe sewers made necessary by the construction of new buildings which could not be drained by existing sewers. In each case they were built as combined sewers.

Agreeable to a petition of Mr. Asa Lamson for a sewer in Franklin Street from Blanche Street 117.5 feet westerly, to drain a proposed new dwelling, both a storm water and a sanitary sewer were laid.

In response to a petition from property owners for drainage for the district between the lower part of Main Street and the Esplanade, sewers

were ordered built in Washington Street from Portland Street to Main Street, Main Street from Washington Street to Carleton Street, Carleton Street the entire length, Hayward Street the entire length, a passageway between Amherst Street and the Esplanade the entire length, Wadsworth Street the entire length and Amherst Street. It was the original intention to connect this section with an old sewer in Broadway. As this would have given grades flatter than good practice would allow, especially in sanitary sewers in a separate system, and cause the upper end to be too high for good cellar drainage, the Committee on Sewers recommended building at this time the trunk sewer for this district. A twenty-one-and-a-half-inch by twenty-eight-and-a-half-inch brick and concrete sanitary sewer was constructed through Main Street and Washington Street to the Metropolitan sewer at Portland Street, where a direct connection without regulator was allowed by the Metropolitan Water and Sewerage Board.

The high cost per foot of this sewer was due mainly to the deep clay cut in Washington Street and the difficult digging and large amount of water encountered in Main Street. The construction in Wadsworth Street of a sanitary sewer and a twenty-one-inch by a twenty-four-inch storm sewer had progressed only 160 feet at the end of the fiscal year.

SCHEDULE OF CATCH BASINS BUILT DURING THE YEAR 1903.

Name of Street.	Location on Street.	When Built.	Cost.
Albany street	E. side near Main street	Aug. 8	$54 00
Clifton "	N. W. corner Dudley street	Aug. 29	157 77
" "	N. E. " " "	Aug. 29	
" "	S. E. " " "	Aug. 29	
Hamlin "	W. side near Plymouth street	Sept. 19	60 30
Jackson "	N. E. corner Dudley street	July 11	127 41
" "	S. E. " " "	July 11	
Mill "	S. W. corner Holyoke street	July 25	61 40
Museum "	N. E. corner Carver street	Aug. 1	57 11
Pilgrim "	South corner near Brookline street	Dec. 27, 1902....	61 13
Pine "	E. side near School street	July 18	50 72
River "	N. side near Montague street	May 30	99 44
" "	N. E. corner Warland street	July 4	51 69

SEWERS CONSTRUCTED BETWEEN DECEMBER 1, 1902, AND DECEMBER 1, 1903.

LOCATION.			CONSTRUCTION.												COST.			TIME WHEN WORK WAS		KIND OF EXCAVATION.	REMARKS.
Street.	From	To	Material.	Shape.	Size of Equivalent Circle. Cased.	Storm.	Sanitary.	Number of Manholes	Lamp-holes.	Inlets.	Maximum cut.	Minimum cut.	Maximum grade.	Minimum grade.	Length.	Per Foot.	Total.	Sums assessed.	Begun.	Finished.		
Athens st....	Mt. Auburn st....	Southerly.....	Akron pipe.....	Circular			8-inch	2	1	21	8	8	0.6 p. c.	0.6 p. c.	256.9			0	May 11	May 26	Filling, sand	
Athens terrace....	Athens st.....	Warren pl.....	" "	"			8 "	.....	.....	8	9.5	9.5	0.6 "	0.6 "	145.0			0	May 11	May 26	" "	
Banks st.....	Mt. Auburn st....	Cowperthwaite st.	" "	"			12 "	2	1	48	13	11.5	0.25 "	0.2 "	617.6			0			" "	
Banks st.....	Cowperthwaite st.	Flagg st.....	" "	"			15 "	2	.....	22	14	13	0.25 "	0.25 "	314.1			0			" "	
Banks st.....	Flagg st.	Stiles st...	" "	"			10 "	1	.....	28	13	12	0.6 "	0.5 "	381.6			0	Mar. 18	May 2	" clay	
Beaver st.....	DeWolf st.....	Cowpertbwaite st.	" "	"			8 "	1	.....	33	12	11	0.3 "	0.3 "	420.8			0			" "	
Beaver st.....	DeWolf st.....	Cowperthwaite st.	" "	"	h	.....	.....	.....	.....	2	10.5	10	0.25 "	0.25 "	93.0			0			" marsb "	
Beaver st.....	DeWolf st.....	Cowperthwaite st.	" "	"			.....	.....	.....	.....	10	10	0.25 "	0.25 "	29.3*	$3 42	$15,269 06	0	Mar. 3	Mar. 14	" " "	
Cowpertbwaite st.	DeWolf st.	Cowperthwaite st.	" "	"			8-inch	3	1	49	11	9	0 8 "	0.25 "	560.4			0			" " "	
DeWolf st.....	Flagg st.....	Banks st.....	Concrete and brick..	Egg			24 "	3†	.....	26	15.5	14	0.1 "	0.1 "	508.2			0	Mar. 16	April 4	" " "	
Flagg st.....	DeWolf st.....	Banks st.....	Akron pipe.....	Circular			8 "	2	.....	50	10	9.5	0.6 "	0.6 "	386.5			0	April 6	April 17	" " "	
Grant st.....	DeWolf st.....	Banks st.....	" "	"			8 "	.....	.....	11	11	8	0.6 "	0.6 "	584.4			0	Feb. 16	May 1	" " "	
Warren pl.....	Banks st.....	Athens terrace....	" "	"			10 "	.....	.....	12	12	11.5	0.3 "	0.3 "	167.8			0	April 13	April 28	" " sand	
Bay st.....	Kinnaird st.....	Franklin st.....	Concrete and brick..	Egg			18 "	1	.....	21	27.5	15	0.1 "	0.1 "	191.6			0	May 4	May 9	" " "	
Flagg st..... ...	Banks st.....	Putnam av.....	" " " ..	Basket handle...		51-inch	.....	1	.....	12	24	11	0.1 "	0.1 "	304.5			0	Aug. 14	Sept. 15	" " clay	
Flagg st.....	Banks st.....	Putnam av.....	Akron pipe.....	Circu ar	1	.....	.....	.....	1	17	13	6.5	3.14 "	0.1 "	304.5			0			Clay	
Flagg st.....	Banks st.....	Putnam av.....	" "	"			10-inch	2	1	54	9	9	0.4 "	0.4 "	275.0*			0	Feb. 16	July 3	"	10840.6 feet or 2.053 miles—.102 miles rebuilt=1.951 miles built under Improved Sewerage Account.
Franklin st.....	Hancock st.....	Soden st.....	" "	"			8 "	1	.....	38	11	9	0.4 "	0.4 "	557.9			0				
Franklin st..... ...	Soden st.....	Pleasant st.....	" "	"			10 "	1	.....	27	11	9	0.4 "	0.4 "	514.4			0	June 15	July 14	Filling, marsb	
Green st.....	Hancock st.....	Easterly.....	" "	"			8 "	.....	1	21	9	9	0.4 "	0.2 "	319.6			0			" " sand	
Green st.....	End of 10-in. pipe.	Vernon st.....	" "	"			15 "	1	.....	11	10	10	0.1 "	0.4 "	261.4			0	Aug. 10	Aug. 22	" clay	
Hancock st.....	Kinnaird st..	Franklin st.....	" "	"			12 "	1	.....	18	10	10	0.2 "	0.1 "	203.3			0			" "	
Hancock st.....	Franklin st.....	Green st.....	Concrete and brick..	Basket handle...		51-inch	.....	1	.....	6	21.5	13	0.1 "	0.2 "	242.3			0	June 1	Sept. 3	" marsh sand	
Kinnaird st.....	Putnam av.....	Eastcrly	Akron pipe.....	Circnlar.....	8ich	.. ..	.....	.....	1	20	9	9	6.6 "	0.1 "	205.4			0			" " "	
Kinnaird st.....	Putnam av.....	Easterly	Concrete and brick..	Egg			18-inch	4	.....	34	24	10	0.1 "	6.6 "	236.3*	6 05	28,726 68	0			Clay	
Kinnaird st.....	Putnam av.....	Howard st.....	Akron pipe.....	Circular.....			15 "	1	1	14	12	12	0.1 "	0.1 "	691.6			0			"	
Kinnaird st.....	Howard st.....	Hancock st.....	" "	"			12 "	1	.....	7	12	11.5	0.4 "	0.1 "	223.7			0				
Kinnaird st.....	Hancock st.....	Jay st.....	" "	"			8 "	3	.....	56	11.5	8.5	0.4 "	0.4 "	100.0			0	April 13	June 6	Filling, clay	
Kinnaird st.....	Jay st	Western av.....	Concrete and brick..	Basket handle...		51-inch	.....	1	.....	3	24	24	0.1 "	0.4 "	643.8			0			" marsh sand	
Putnam av.....	Flagg st.....	Kinnaird st.....	" " " ..	Egg			18-inch	1	.....	.....	27	27	0.1 "	0.1 "	79.4			0			" " "	
Putnam av.....	Flagg st.....	Kinnaird st.....	Akron pipe.....	Circular			8 "	1	1	33	9.5	9	0.6 "	0.6 "	420.4			0			" " "	
Soden st.....	Franklin st	Western av.....	" "	"			8 "	2	.....	34	11	9	0.4 "	0.4 "	520.5			0	June 23	Jnly 8	Clay	
Elm st.....	Hampshire st.....	Market st.....	" "	"		10-inch	.....	.....	.....	6	8	6	0.2 "	0.2 "	117.5	1 62	844 60	0	July 15	July 25	"	
Franklin st.....	Sidney st.....	Blanche st.....	" "	"		.....	8-inch	1	.....	6	10	8	0.6 "	0.6 "	117.5	2 25	264 32	0	Nov. 13	Nov. 28	Filling, marsh sand	
Franklin st	Sidney st.....	Blanche st.....	" "	"		.....	.....	.....	1	12	9.5	8.5	0.4 "	0.4 "	198.1			0	Nov. 20	Nov. 25	Sand, clay	
Front st.....	Mass. av.....	Windsor st.....	" "	"		.....	.....	1	1	17	8.5	8	0.5 "	0.5 "	249.9	1 82	360 50	$138 07	Nov. 20	Nov. 25	Filling, marsh clay	
Henderson ct.....	Day st.....	Southerly.....	" "	"		.....	.....	2	.....	20	10	9.5	2.4 "	2.4 "	295.2	1 46	366 41	320 52	April 29	May 9	" " "	
Lake View av. ...	Brattle st.....	Northerly	" "	"		.....	.....	1	1	.....	8.5	8.5	0.2 "	0.2 "	73.6	2 14	631 91	374 84	Dec. 18	Dec. 27	Sand	
Rindge av.....	Rindge terrace....	East and West....	" "	"		.....	.....	.....	.....	14	9	8.5	0.2 "	0.2 "	195.6	1 93	142 14	0	Aug. 4	Aug. 22	" "	
Rogers st..	Second st.....	Westerly	Portland pipe.....	"		.....	.....	.....	.....	40	15.5	15.5	0.2 "	0.2 "	678.0	4 17	806 26	268 00	Nov. 8	Nov. 10	Gravel	
Main st.....	Washington st.....	Ames st.....	Concrete and brick..	Egg		.....	24-inch	4	.. ....	60	16	15	0.25 "	0.25 "	835.8			0	Dec. 2	Dec. 27	Filling, marsh	4098.3 feet or 0.776 miles built under Construction Account.
Main st.....	Ames st..	Hayward st.....	Akron pipe.....	Circular.....		.....	15 "	3	.....	60	15.5	15.5	0.25 "	0.25 "	256.2			0			" " sand	
Main st.....	Hayward st.....	Wadsworth st. ...	" "	"		.....	12 "	1	.....	18	13	13	0.35 "	0.35 "	170.0	Incom-plete.	22,317 25	429 82	Sept. 26	Nov. 18	" " "	
Wadsworth st.....	Main st	Southerly.....	" "	"		.....	10 "	1	.....	8	8	8	0.1 "	0.1 "	160.0			0			" " "	
Wadsworth st.....	Main st.....	Southerly.....	Concrete and brick .	Basket handle...		24-inch	.....	.....	.....	.....	8	8	0.1 "	0.1 "	750.9			0	Nov. 2	Incomplete	" sand clay	
Washington st.....	Portland st.....	Main st.....	" " " ..	Egg		.....	24-inch	4	.....	60	20	19	0.2 "	0.2 "	240.2*			0	Nov. 2	Incomplete	" " "	
Hancock st.....	Franklin st..	Green st.....	" " " ..	"		.....	.....	.....	1	24	9	9	0.1 "	0.1 "	147.9*	3 35	804 91	0	Aug. 17	Sept. 26	" marsh "	
Seventh st.....	Cambridge st.....	Otis st.....	Akron pipe.....	Circular		.....	.....	.....	1	13	8.5	8	0.6 "	0.6 "		1 26	186 66	0	June 1	Sept. 3	" "	
								59	14	1,056								June 8	June 12	Clay	388.1 feet or 0.074 miles built under Maintenance Account.

* Renewal.

† One manhump, one regulator chamber.

15327.0—928.7 feet sewers rebuilt=14398.3 feet or 2.727 miles. 15327.0 feet=2.903 miles.

SCHEDULE OF BIDS FOR FURNISHING AND DELIVERING SEWER MATERIALS DURING THE YEAR 1903.

Name of Bidder.	Brick.	American Cement.	Port Cement.	Castings.	Lumber.	Stone.	Pipe.
E. D. Sawyer Lumber Co...	.....	.....	.....	.....	$20.40*		
Geo. W. Gale Lumber Co...	.....	.....	.....	.....	20.50		
J. S. Clary Lumber Co.....	.....	.....	.....	.....	20.60		
E. B. James Lumber Co....	.....	.....	.....	.....	20.70		
W. H. Wood & Co..... ...	.....	.....	.....	.....	21.00		
John M. Riley...	$10.25	Norton*	Alpha*	.....	20.70	.....	No. 1, 66 per cent. on work 2 feet.
		$1.01	$2.15	.....	.....	.....	No. 2, 67 per cent., F. O. B. cars.
New England Brick Co.....	9.00*	Norton	Alsens	.....	.....	.....	.....65 per cent., F. O. B. cars.
		$1.08	$2.25				
New Eng. Pipe & Cement Co.	.....	Newark	Atlantic	.....	.....	.....	No. 1, 68 per cent., 2 feet F. O. B. cars.
		$1.08	$2.40	.....	.....	.....	No. 1, 66 per cent., 3 feet F. O. B. cars.
							No. 2, 75 per cent , F. O. B. cars.
Eastern Clay Goods Co.....	.....	Newark	Northampton	.....	.....	.....	No. 1, 60 per cent. on work 2 feet.
		$1.08	$2.60	.....	.....	.....	No. 1, 60 per cent. on work 3 feet.
							No. 1, 67 per cent., F. O. B. cars, 2 feet.
							No. 1, 65 per cent , F. O. B. cars, 3 feet.
							No. 2, 70 per cent. on work.
							No. 2, 75 per cent., F. O. B. cars.
Berry & Ferguson.....	.....	Norton	Saylors	.....	.....	.....	No. 1, 60 per cent. on work 2 feet.
		$1.11	$2.345	.....	.....	.....	No. 1, 60 per cent on work 3 feet.
							No. 1, 67 per cent., F. O. B. cars, 2 feet.
							No. 1, 65 per cent., F. O. B. cars, 3 feet.
							No. 2, 75 per cent., F. O. B. cars.
Portland Stone Ware Co....	.....	.....	.....	.....	.....	.....	No. 1, 60 per cent. on work 2 feet or 3 feet.
							No. 1, 67 per cent., F. O. B. cars, 2 feet.
							No. 1, 65 per cent., F. O. B. cars, 3 feet.
							No. 2, 70 per cent. on work.
David W. Lewis.....	.....	Norton	Iron clad	.....	.....	.....	No. 1, 60 per cent. on work 2 feet or 3 feet.
		$1.06	$2.28	.....	.....	.....	No. 1, 67 per cent., F. O. B. cars, 2 feet.
			Alpha	.....	.....	.....	No. 1, 65 per cent., F. O. B. cars, 3 feet.
			$2.25	.....	.....	.....	No. 2, 70 per cent. on work.
			Invicta, $2.15	.....	.....	.....	No. 2, 75 per cent., F. O. B. cars.
Waldo Bros.....	.....	.....	.....	.....	.....	.....	No. 1, 60 per cent. on work 2 feet or 3 feet.*
							No. 1, 67 per cent , F. O. B. cars, 2 feet.
							No. 1, 65 per cent., F. O. B. cars, 3 feet.
							No. 2, 70 per cent. on work 2 feet or 3 feet.
							No. 2, 75 per cent., F. O. B. cars, 2 ft or 3 ft.
Bryant & Kent.....	.....	.....	Nazareth, $2.49				
Waltham Trap Rock Co.....	.....	.....	.....	.....	.....	F. O. B., $1 35	
W. B. Mullen	.....	.....	.....	.....	.....	Delivered, $1.08*	
Osgood & Witherly.....	.....	.....	.....	$1.85 cwt.*			
Sessions Foundry Co.....	.....	.....	.....	$1.95 cwt. M. H.			
				$1.91 cwt. D. Fr.			
Hayes Foundry Co.....	.....	.....	.....	$2.09 cwt.			

* Contract awarded.

SCHEDULE OF SHOWERS IN WHICH RATE OF PRECIPITATION EXCEEDED 0.75 INCHES PER HOUR FOR THREE MINUTES OR MORE, 1899 TO 1903.

Date.	Time of Shower.	Duration of Heaviest Shower in Minutes.	Depth of Precipitation of Heaviest Shower.	Rate Per Hour in Inches for Heaviest Shower.	Duration of Whole Rain Storm.	Depth of Precipitation for Entire Storm.
			Inches.		Hrs. Mins.	Inches.
Dec. 15, 1899	7 A. M.	10	.14	.84	9 30	.72
May 15, 1900	7.45 P. M.	3	.15	3.00	1 ..	.25
June 29, "	1.20 "	5	.25	3.00	8 10	.45
July 12, "	5.30 "	5	.20	2.40	2 40	.56
July 26, "	5.20 "	5	.25	3.00	8 45	1.40
Aug. 16, "	12.10 "	10	.70	4.20	5 ..	1.25
Aug. 27, "	9.20 "	8	.50	3.75	.. 10	.50
Sept. 21, "	9.40 "	15	.30	1.20	3 50	.54
Nov. 9, "	8.50 A. M.	5	.33	3.96	4 30	.65
June 2, 1901	3.30 P. M.	5	.22	2.64	.. 15	.25
July 28, "	1.30 A. M.	10	.30	1.80	5 40	1.70
July 28, "	2.50 "	20	.35	1.05	5 40	1.70
Aug. 7, "	11.40 "	10	.33	1.98	8 20	1.29
Aug. 24, "	11.30 P. M.	20	1.20	3.60	5 20	2.20
Aug. 24, "	12.20 P. M.	30	.50	1.00	5 20	2.20
Sept. 17, " *	11.50 A. M.	*	.30	*	5 ..	.50
Sept. 17, "	4.40 P. M.	5	.20	2.40	5 ..	.50
Feb. 28, 1902	7 P. M. to 1 A. M.	360	1.98	.33	8 20	2.00
Feb. 28, "	11.10 P. M.	10	.30	1.80	8 20	2.00
June 8, "	2.00 "	4	.12	1.80	1 10	2.50
July 15, "	6.40 "	4	.40	6.00	1 40	.70
July 19,20, "	10.50 "	10	.50	3.00	26 ..	1.75
Aug. 11, "	1.40 "	40	.60	.90	15 45	1.25
Oct. 28, "	2.00 A. M.	90	.90	.60	11 46	1.82
June 21, 1903	3.20 P. M.	30	.50	1.00	27 ..	2.30
Sept. 5, "	8.00 P. M.	10	.70	4.20	2 50	.84
Oct. 17, "	1.10 A. M.	3	.25	5.00	12 10	1.13

* Three-tenths of an inch fell so quickly as to show no time on the recording guage.
Observations by recording rain guage at City Hall, Cambridge.

BRIDGE STREET OUTLET.

The dredging and removing 4,949.6 cubic yards of material at this point by the Eastern Dredging Company at 54 cents per yard was completed in 1902 and a report of the work showed in the annual report of that year. The work was completed late in the financial year and payment made in December, causing it to appear in this report.

ALEWIFE BROOK.

In conjunction with the towns of Arlington and Belmont the cities of Cambridge and Somerville prepared a bill and secured its passage through the last session of the legislature, Chapter 327 of the acts of 1903. This act provides for the establishment of a commission consisting of the Mayors of the cities of Cambridge and Somerville and the Chairmen of the Selectmen of Belmont and Arlington which has the power to, for the pur-

pose of surface drainage, widen, fill, clear, grade, deepen, alter the channel of, wall up, cover, and otherwise improve in whole or in part Alewife Brook, from the Mystic River to Little River; Little River from Alewife Brook to the Arlington line and Wellington Brook from Little River to Wellington Street. The expense to be proportioned 15 per cent., to Somerville, 20 per cent., to Belmont, 22 per cent., to Arlington, and 43 per cent., to Cambridge.

The Commission held one meeting and organized with Mayor McNamee as chairman. No pertinent action was taken at this meeting and no subsequent meeting has been held, awaiting an investigation being carried on by the Metropolitan Park Commission relative to improvements in the Mystic Valley and Alewife Brook District which will vitally affect the future development of this territory.

It is sincerely hoped by this office that some action will be taken as the City of Cambridge is very much interested in having some work done towards improving the present condition of this brook which drains the northerly section the City.

BELMONT SEWERAGE.

As stated in the last annual report of this department, "On Septem- 2, 1902, the Selectmen of Belmont presented a petition requesting permission to connect its system now being constructed in the easterly part of the town, comprising about 330 acres, with the Cambridge system in Cushing Avenue near the Belmont line."

This petition was granted by the following order of the Board of Aldermen approved by the Mayor, December 12, 1902: —

December 2, 1902.

In Board of Aldermen: —

ORDERED: — "That the Town of Belmont in accordance with its petition to this Board, dated November 18, 1902, be granted permission to connect its separate system of sewers draining the territory adjacent to the westerly boundary of the City of Cambridge with the common sewer belonging to the said City of Cambridge in Cushing Avenue, near the City line, as authorized by Chapter 204, Section 6, of the Acts of the Legislature for the year 1880, upon the following terms and conditions: —

1st: — That no storm or surface water shall be allowed to enter the sewer system as constructed by the Town of Belmont and now proposed to be discharged into and through the common sewers of Cambridge.

2nd: — That the maintenance and operation of the sewer system by the Town of Belmont shall be carried on in such a manner as not to create conditions tending to interfere with or impede the flow of sewage in the sewers in Cambridge. To this end, the City Engineer of Cambridge

shall have the right to examine at any time the sewers in the Belmont territory and if any such conditions exist, the Town of Belmont, shall upon notice from the said City Engineer, at once remove such conditions.

3rd : — That so much of said sewer connection as lies within the limits of Cambridge shall be constructed by the Town of Belmont, said connection to be made under the direction and to the satisfaction of the City Engineer of Cambridge. The Town of Belmont to be responsible for and give the usual bond required by the Street Department for the opening of the street.

4th : — That the determination of the amount of a "just compensation" for the use of the Cambridge outlet sewers be deferred until the expiration of this permit, when the matter of the extension of the Metropolitan Sewer System to the Belmont line referred to in said petition is expected to be determined.

5th : — That this permit shall terminate at the expiration of one year from the date of the approval of this order unless the same shall be extended by the mutual consent of both parties."

Adopted.

Attest: ALBERT M. PEAR (Signed),
Ass't City Clerk.

Executive Department, Dec. 12, 1902.

Approved, (Signed), JOHN H. H. McNAMEE,
Mayor.

Acting under the authority of this order, the Town of Belmont was allowed to make a connection with the Cambridge sewer. The flow from this connection has been slight, only eight houses having made connections on December 1, 1903.

On August 24, 1903, another petition was presented, praying for permission to connect an 8-inch sewer with the sewer manhole on Cushing Avenue, near the Belmont line; said permission to be for temporary use until the proposed Metropolitan sewer shall be completed to above named point."

This petition was granted by an order of the Board of Aldermen, approved September 21, 1903, with the same terms as in the previous order. No connection has been made under this order.

METROPOLITAN SEWER.

Legislative Acts Of The Year 1903

[Chap. 336.]

AN ACT TO PROVIDE AN ADDITIONAL OUTLET FOR THE SEWAGE OF THE TOWN OF BELMONT.

Be it enacted, etc., as follows :—

Section 1. The metropolitan water and sewerage board is hereby authorized and directed to provide an outlet for the sewage of that part of the town of Belmont, approximately three hundred and thirty acres in area, situated north of Belmont Street and adjoining the city of Cambridge on the westerly side of that city, and to construct for that purpose a sewer extending westerly from the existing metropolitan sewer in Mount Auburn street, at Lowell street, through Mount Auburn street to Aberdeen avenue, thence northerly through Aberdeen avenue, and westerly through Dundee street and private lands and under the Watertown Branch railroad ; thence westerly through Holworthy place and Holworthy street and private lands to Cushing street near Cushing avenue ; and thence westerly in Cushing avenue to the Belmont line at Ericson street. The city of Cambridge shall have the right to make and maintain house connections with said additional metropolitan sewer and to connect lateral sewers therewith, in the same manner in which connections are made with the present sewers of that city, under the direction of the metropolitan water and sewerage board : *provided however*, that no drain or sewer used for the conveyance of any rain water shall be connected with said sewer.

Section 2. In providing an outlet for the sewage of the aforesaid part of the town of Belmont and in receiving sewage from said area, and in all action relating thereto, and for the purpose of constructing and maintaining the additional metropolitan sewer, the metropolitan water and sewerage board, acting on behalf of the Commonwealth, shall have and exercise all the authority conferred upon said board by chapter four hundred and thirty-nine of the acts of the year eighteen hundred and eighty-nine, and by acts in amendment thereof and in addition thereto, regarding the original system or anything relating thereto ; and all the provisions of said chapter and acts are hereby made applicable to this additional taking and construction, except as otherwise provided herein.

Section 3. The treasurer and receiver general, in order to meet the expenses incurred under this act, shall with the approval of the governor and council, issue from time to time scrip or certificates of debt in the name and behalf of the Commonwealth and under its seal, to an amount not exceeding fifty thousand dollars, and any scrip or certificates of debt so issued shall be considered as in addition to the amounts authorized under said chapter four hundred and thirty-nine and acts in amendment thereof and in addition thereto, and the provisions of said chapter and acts in relation to the loan so authorized shall apply to this additional loan.

Section 4. This act shall take effect upon its passage. [*Approved May 9, 1903.*

Sealed bids for building this section of the North Metropolitan System were received at the office of the Metropolitan Water and Sewerage Board on Wednesday, September 9, 1903, and the contract was awarded to Charles R. Gow, of Dorchester.

The state tax for the year 1903, assessed to Cambridge on account of the Metropolitan Sewer, is as follows: —

Sinking Fund requirements	$12,563 00
Interest account	40,232 93
Maintenance and operation	27,040 72
	$79,836 65

SEPARATION OF DRAINAGE.

In order that the construction of separate systems of drainage might be carried on in the several municipalities using the Metropolitan Sewer System, and to provide a means to meet the expense thereof, an act (Chapter 383, Acts of 1903) was passed by the Legislature of 1903 which provided that any city or town using any metropolitan sewer may in any year, and shall in any year specified by the officer or board having charge of said (metropolitan) sewers, expend one-twentieth of one per cent. of its taxable valuation in the construction of a separate system of drainage. This act also provides that the plumbing of estates shall be so arranged as to keep the drain water separate from the sewage.

STATEMENT SHOWING RESULTS OBTAINED FROM RECORD OF AUTOMATIC REGISTERS AT VARIOUS CONNECTIONS WITH THE METROPOLITAN SEWER.

	REGULATOR.						TIDE GATE.					
	Binney St. at Portland St.		Mass. Ave. at Alewife Brook.		Mt. Auburn St. at Lowell St.		Binney St. at Outlet.		Bath St. at Outlet.		Lowell St. Outlet.	
Year.	Hours shut.	Per cent of total time.	Hours shut.	Per cent. of total time.	Hours of Partial Closure.	Per cent. of total time.	Hours open.	Per cent. of total time.	Hours open.	Per cent. of total time.	Hours open.	Per cent. of total time.
	h. m.		h. m.		h. m.		h. m.		h. m.		h. m.	
To December 1, 1899	606 45	6.93	.....	.....	.....	.....	248 00	2.83	569 00	6.50	.....	.....
1900	569 30	6.50	387 8	4.42	.....	.....	291 10	3.32	315 25	3 60	.....	.....
1901	418 40	5.03	587 30	6.74	.....	.....	217 20	2.48	209 00	2.39	.....	.....
1902	609 40	6.90	*573 00	6.50	.....	.....	§123 20	1.55	.....	.....	.....	.....
Dec. 1, 1901, to Jan. 14, 1902	.....	.....	.....	.....	.....	.....	.....	.....	29 35	2.77	.....	.....
Jan. 29, 1902, to Dec. 1, 1902	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	164 35	2.24
Dec. 1, 1902, to Dec. 1, 1903	696 55	7.95	†272 20	3.11	867 45	9.91	220 40	2.52	.....	.....	138 5	1.57

* The time here given is for a complete closing of the regulators. In addition to this the records show a partial closure for 1,216½ hours during the year.

§ From July 12, 1902, to Aug. 14, 1902, no records were obtained from this register, as the gates were undergoing repairs.

† The time here given is for a complete closing of the regulator. In addition to this the records show a partial closure for 1,328 hours during the year.

CHARLES RIVER DAM.

As provided by Chapter 105 of the Resolves of the Legislature of 1901, Messrs. Henry S. Pritchett, Samuel M. Mansfield and Richard H. Dana were appointed by the Governor of the Commonwealth, as a committee to investigate and report upon the feasibility and desirability of constructing and maintaining a dam across Charles River between Boston and Cambridge in the vicinity of the bridge known as Craigie Bridge and West Boston Bridge.

As required by the above Resolve this committee reported to the Legislature on January 14, 1903, recommending that a dam be built substantially on the site of the present Craigie Bridge sufficiently high to keep out all tides and that a fresh water basin be maintained at a permanent level not below grade eight or above grade nine Boston base.

The Legislature in accordance with the reports of this committee passed "An Act to authorize the construction of a dam across the Charles River between the Cities of Boston and Cambridge", Chapter 465, Acts of 1903.

WATER WORKS.

The following statement shows the condition of the water in the various reservoirs since 1870, and affords a ready means of comparison of interesting data for the different years: —

Year.	*Annual rainfall.	FRESH POND. Elevation of high water, 16.85				STONY BROOK BASIN. Elevation of crest of dam, 81.00.						HOBBS BROOK BASIN. Elevation of crest of dam, 181.00			
		Highest Water.		Lowest Water.		Highest Water.		Lowest Water.		No. of days water wasted overdam	Number of Gallons Wasted	Highest Water.		Lowest Water.	
		Date.	El.	Date.	El.	Date	El.	Date.	El.			Date.	El.	Date.	El.
1870	41.53	April 21	16.85	Nov. 22	12.44										
1871	40.09	May 8	15.32	Oct. 5	12.68										
1872	51.98	Oct. 1	16.17	Dec.19,'71	13.00										
1873	46.10	April 2	16.55	Nov. 7	12.52										
1874	41.87	June 8	15.24	Nov. 27	11.80										
1875	51.46	June 24	12.60	Feb. 23	8.97										
1876	43.60	May 31	13.27	Jan. 6	10.60	Conduit from Fresh to Little Pond completed.									
1877	48.93	April 7	16.31	Oct. 4	12.05	Filter gallery built at Little Pond—Water drawn to Fresh Pond from Oct. 11 to end of year.									
1878	50.99	May 1	16.43	Nov. 17	13.54	Water admitted to Fresh Pond through conduit from July 26 to the end of the year.									
1879	39.64	May 1	15.80	Nov. 28	12.11										
1880	33.31	April 5	13.08	Nov. 30	8.34	Water admitted to Fresh Pond through conduit from Sept. 28 to the end of the year.									
1881	42.85	April 18	16.04	Feb. 9	7.73										
1882	39.62	Mar. 28	15.87	Nov. 30	10.69										
1883	29.75	April 14	11.93	Nov. 26	5.91	Water admitted to Fresh Pond through conduit from Jan. 24 to April 13.									
1884	46.07	April 27	14.08	Jan. 1	5.54	Water admitted to Fresh Pond through conduit from Jan. 16 to April 10.									
1885	48.98	May 4	10.61	Oct. 29	5.95	Water admitted to Fresh Pond through conduit from Feb. 10 to Mar. 2.									
1886	46.12	May 12	13.74	Dec. 1	6.62	Water admitted to Fresh Pond through conduit from Jan. 13 to Mar. 31. Conduit abandoned 1887.									
1887	43.99	May 1	8.00	Nov. 5	3.32	Aug. 15	75.00	Jan. 22	†51.70						
1888	60.01	May 13	16.25	Jan. 1	9.66	Mar. 22	83.40	Dec.11,'87	72.43	244	7,315,800,000				
1889	60 08	Jan. 8	16.62	Oct. 12	13.72	Dec 19,'88	82.91	July 2	80.75	363	10,202,600,000				
1890	49.32	April 10	16.74	July 27	13.69	Mar. 24	82.40	Sept. 6	71.66	302	8,929,800,000				
1891	49.11	Mar. 24	16.78	Aug. 26	12.19	Jan. 23	83.31	Nov. 10	72.20	209	8,214,400,000				
1892	41.17	May 23	16.64	Aug. 3	12.29	Mar. 11	82 80	Nov. 10	69.56	202	3,804,100,000				
1893	39.52	May 5	17.07	Nov. 3	11.67	Mar. 15	82.83	Sept. 9	64.50	133	4,735,800,000				
1894	35.66	June 1	17.15	Sept. 18	10.65	Mar 7	82.24	Oct. 25	68.40	164	2,852,600,000				
1895	49.72	June 2	17.30	Sept. 15	11.44	April 15	82.56	Dec.11,'94	74.80	224	5,304,200,000				
1896	41.77	April 27	16.49	Nov. 24	10.95	Feb. 7	83.30	Sept. 5	66.13	225	5,852,700,000				
1897	43.35	June 11	17.34	Dec.1,'96	11.41	Mar. 25	82.00	Nov. 1	71.02	256	4,016,600,000				
1898	53.69	May 2	17.35	Oct. 19	15.23	Feb. 22	82.27	Aug. 5	75.42	260	5,704,600,000	Oct. 27	181.53	Dec.16,'97	‡159.00
1899	44.96	Jan. 27	17.15	Sept. 19	13.17	Mar. 6	82.25	July 8	75.30	175	6,969,500,000	Mar. 20	181.27	Nov. 30	175.93
1900	51.29	April 23	17.46	Sept. 16	13.96	Mar. 2	82.81	July 9	77.04	145	4,447,100,000	Mar. 17	181.85	Jan. 10	175.10
1901	46.87	May 25	17.62	Nov. 17	14 45	April 8	82 54	Feb. 26	78.10	159	6,073,150,000	April 8	181.85	Dec.1, '00	177.30
1902	44.58	April 14	17.24	Nov. 30	13.45	Mar. 1	83.92	July 8	79.00	182	6,567,175,000	March 2	182.15	Oct.27, '02	178.28
1903	45.95	April 20	14.64	Nov. 29	11.50	June 21	82.62	June 1	79.82	222	6,437,500,000	June 22	181.75	Dec. 1, '02	178.48

*Record of annual rainfall taken at Harvard Observatory during the years 1870 to 1879 inclusive, at Fresh Pond from 1880 to 1889, and at Stony Brook from 1890 to 1903.

†The water gates at Stony Brook Dam were first closed June 9, 1887, with water at elevation 58.80. Water was formally introduced into Fresh Pond Nov. 15, 1887, and first flowed over dam Jan. 3, 1888.

‡The water gates at Winter St. Dam were first closed Dec. 16, 1897. The basin filled in 247 days and water first flowed over dam Aug. 20, 1898.

Water wasted over the Stony Brook Dam as follows: —

December, 1902	387,300,000	gallons
January, 1903	639,000,000	"
February, 1903	882,000,000	"
March, 1903	1,854,900,000	"
April, 1903	1,562,400,000	"
May, 1903	141,700,000	"
June, 1903	632,700,000	"
July, 1903	237,700,000	"
August, 1903	26,800,000	"
September, 1903	———	"
October, 1903	72,900,000	"
November, 1903	———	"

Total amount passing the dam during the year, 6,437,500,000 gallons.

TABLE: SHOWING COMPARISON BY MONTHS OF THE TOTAL PRECIPITATION AT STONY BROOK BASIN, HOBBS BROOK BASIN, HARVARD OBSERVATORY AND CAMBRIDGE CITY HALL; ALSO THE NUMBER OF DAYS IN WHICH RAIN FELL AT CITY HALL, DECEMBER 1, 1902, TO DECEMBER 1, 1903.

Point of Observation.		1902.	1903.										
		Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct	Nov.	Total
Stony Brook Basin.	Total Precipitation.	5.63	3.77	4.01	6.13	3.37	0.80	7.45	3.38	3.66	1.99	4.19	1.44	45.87
Hobbs Brook Basin.	Total Precipitation.	5.84	3.24	3.34	6.09	3.31	0.82	8.47	3.89	4.08	2.45	4.57	1.48	47.58
Harvard Observatory.	Total Precipitation.	5.99	3.51	3.65	6.09	4.07	0.38	7.40	2.61	3.56	1.67	4.03	1.52	44.48
City Hall.	Total Precipitation.	6.69	3.91	4.09	5.32	3.57	0.20	6.33	2.97	3.09	2.43	3.12	1.26	42.93
	Number of days rain fall.	12	7	7	11	5	3	6	9	8	4	8	4	84

PARK DEPARTMENT.

During the financial year this Department has been connected with the following work done by the Park Department: —

The contract with Mr. W. B. Mullen to deliver and spread fifty thousand cubic yards, more or less, of gravel filling on Section "C" of the River Parkway was signed June 11, 1903. Under arrangement with Mr. Mullen the Bay State Dredging Company has delivered at Section "C," on Nov. 30, 1903, thirty-nine thousand three hundred fifty-four and three-tenths cubic yards of a very good quality of gravel. The material was taken from the new channel being dug in connection with the Cambridge Bridge.

TABLE SHOWING RAINFALL AT STONY BROOK BASIN ATVESTON, AT HOBBS BROOK BASIN IN WALTHAM, AND THE CITY HALL AND HARVAROBSERVATORY, CAMBRIDGE, DECEMBER 1, 1902, TO DECEMBER 1, 1903.

Day of Month.	DECEMBER, 1902.				JANUARY, 1903.				FEBRUARY.				MARCH.				APRIL.				MAY.				JUNE.				JULY.				AUGUST.				SEPTEMBER.				OCTOBER.				NOVEMBER				Day of Month.
	Stony Brook.	Hobbs Brook.	City Hall.	Harvard Observ.	S. B.	H. B.	C. H.	H. O.	S. B.	H. B.	C. H.	H. O.	S. B.	H. B.	C. H.	H. O.	S. B.	H. B.	C. H.	H. O.	S. B.	H. B.	C. H.	H. O.	S. B.	H. B.	C. H.	H. O.	S. B.	H. B.	C. H.	H. O.	S. B.	H. B.	C. H.	H. O.	S. B.	H. B.	C. H.	H. O.	S. B.	H. B.	C. H.	H. O.	S. B.	H. B.	C. H.	H. O.	
1	0.39	0.20	0.11	0.28												0.0													0.06	0.32	0 23	0.03																1
2											0.17	T																	0.66			0.23								0.15	0.13	0.09					2
3		0.60	0.50	0.48	1.08	0.85	0.87	0.90	0.18	0.16		0.16				T	.18	0.08	0.10	0.13																											3
4	0.50	0.10										0.44							0.32				0.03	0.06										0.30														4
5			0.46	0.44					1.05	0.90	0 74	0.39					.34	0.37		0.32		0.05											0.56	0.65	0.80	0.76			0.84				0.22					0.20	0.25	0.13	5
6	0.75	0.40	0.35	0.36			0.42	0.06					0.19	0.22	0.19	0.2					0.18	0.15		0.14						0.30	0.32		0.82	0.55	0.30	0.42	0.89	1.25		0.6	0.20	0.30		0.20	0.22	0.04		0.11	6
7		0.18	0.15	T	0.27	0.30	0.04	0.29												0 03									0.17			0 33	0.25	0.30	0.05	0.27									0.06			0.18	7
8	0.17			0.16	0.08	0.06		0.07			0.35			0.20	0.70	0.2	.32	0.22	1.54	0.31							0.62	T												0.10	0.20	0.27					8
9									0.38	0.32		0.39	1.39	1.42	0.53	1.1	.30	1.30	0.25	1.26					0.32	0.30		0.51						0.03	T					59	0.40	0.05	0.20					9
10													0.08		0 16	0.1	.15	0 25		0.20					0.05	0.15		T					0.10							0.07	0.30	0.01					10
11			T	T							0.43			0.50	0.40	0.3										0.10		0.01												41	0.60	0.40	0.74					11
12	0.16	0.10		0.16	0.64	0.45	0.64	0.57	0.42	0.33		0.38	0.45			0.0									0.10	0.15		0.09								T				37	0.60	0.69	1.00				T	12
13																									0.96	0.97	0.92	0.99		0.12		0.03								66	0.50		0.27					13
14	0.41	0.80	1 63	0.85												T				T					0.09				0.11			T															14
15																	.11	0.12	1.36	0.38	0.19	0.22	0.08	0.09			1.90	0.45		0.05																	15
16	0.20	1.20	0.87	0.28						0.28	0.90	0.55				T	.90	0.90		1.38					2.16	2.75		1.99										0.37					0.60				16
17	0.85			0.68					0.60	0.85	1.25	1.00								0.05											0.02		0 48	0.60		0.21	0.33	0.40	0.27	0.3				0.73	0.75	0.32	0.81	17
18									0.95			0.06					.07	0.07		0.01								T									0.14	0.20		0.1	65	1.70	1.13	1.13	0.30	0.35		0.19	18
19																						0.15							0.96	1.00	0.90	0.31				0.09				.23			T					19
20																					0.25			0.02						0.10	T	0.10	0.35	0.22	0.19													20
21			0.50		0.45	0.93	1.05	0.58							0.10	0.25	T								1.07	1.05	2.30	1.27	0.20	0.90	0.26	0.29	0.09															21
22	1.41	1.50	0.89	1 30	0.60			0.42					0.58	0.40	0 35	0.6									2.12	2.30		1.45	0.27	0.30	0.09	0.03										0.04							22
23													0.90	0.80	0.80	0 8									0.05				0.17	0.15	0.70	0.31											0.09	0.03			23
24													1.05	1.08	0.58	0.8												T	0.51											0 C	08	0.15		0.12	0.13	0.10		0.07	24
25							0.39	0.06					0.05			0.0									0.32	0.35	0.25	0.44			0.15				0.67	024													25
26	0.65	0.60	0.92	0.85	0.13	0.11		0.14																						0.15		0.01	0.72	0.80		0.44												26
27		0.03	0.22	0.02																												0.23						0.95										27
28						0.08			0.43	0.50	0.25	0.28				0.0																		0.15			0.63	0.60		0.5									28
29					0.09			T					0.13	0.07		0.0					0.18			0.07	0.21						0.17			0.18		0.18													29
30	0.19	0.13	0.09	0.13	0.43	0.46	0.50	0.25							0.20							0.05		T		0.35	0.34	0.20	0.20	0.32	0.15	0.74	0.26		0.72	0.09										T	30
31								0.17					[redacted]																0.07	0.18		0.05	0.38	0.40		0.67												31
Total	5.68	5.84	6.69	5.99	3.77	3.24	3.91	3.51	4.01	3.34	4.09	3.65					.37	3.31	3.57	4.07	0.80	0.82	0.20	0.38	7.45	8.47	6.33	7.40	3.38	3.89	2.97	2.61	3.66	4.08	3.09	3.56	1.99	2.45	2.43	1.0	19	4.57	3.12	4.03	1.44	1.48	1.26	1.52	

This gravel underlies a covering of mud which, in the course of the work, was first removed, and a large part of it dumped on Park lands on on the Cambridge side of the river. Five thousand five hundred seventy and six-tenths cubic yards on Section "D" in the cove near River Street, five thousand one hundred and twenty-three cubic yards on Section "C," between Brookline Street and the Boston & Albany Railroad, and twelve thousand and eighty-one cubic yards on Section "C" outside of the bulkhead.

The gravel has been spread to a level grade which will, it is expected, allow shaping to sub-grade without waste or excess. The material already delivered has been sufficient to carry the work the full width of the Park within about eight hundred and fifty feet of the railroad, and for the remainder of the way wide enough to allow the building of a driveway to the railroad.

Acting under directions from your Board, the grade of the play field at Rindge Field was altered to allow of the grading of this part of the general scheme for improvement to be carried forward without the necessity of purchasing any filling, and also to obtain a larger unobstructed play field. The grade fixed has provided an excess of material which has been used in filling the low part of the field along Yerxa Road.

Fort Washington has been renovated by rebuilding the moat and rampart, constructing walks, setting up old cannon and planting some shrubs in accordance with plans prepared in this office.

A plan was prepared for the installation of baths in the basement of the Shelter at Cambridge Field which called for six baths, four dressing rooms and seventy-eight lockers. This work was carried out substantially as shown upon this plan.

A new entrance and necessary walk was laid out and built at Broadway Common to accommodate the people wishing to cross the Park from Tremont Street.

For the Park Department, this office has during the year made ten surveys, given fifty grades, made twenty plans, given twenty lines and set three stone bounds. These bounds were set on the park-line between Boylston and Holyoke Streets. Considerable work has been done toward the completion of the plans of the various sections of the River Parkway. The work for the Park Department this year has been under the direction of Mr. F. E. Everett.

Respectfully submitted,

J. W. PIERCE,
City Engineer.

REPORT OF THE CHIEF OF POLICE

To His Honor the Mayor and the City Council of the City of Cambridge:—

GENTLEMEN: — In compliance with the City Ordinance, I have the honor to present my annual report of the work of the Police Department for the year ending November 30, 1903.

The whole number of arrests for the year has been two thousand eight hundred and two (2,802), against two thousand eight hundred and ninety (2,890) last year; a decrease of eighty-eight (88).

Males	2,600	Adults	2,340
Females	202	Minors	462

The offences for which arrests have been made are as follows: —

Adultery	6	Larceny	232
Assault and battery	169	Larceny from building	3
Assault, felonious	3	Lewd and lascivious	2
Assault on officer	6	Loitering	4
Assault, indecent	1	Malicious mischief	10
Arson, attempt at	1	Manslaughter	1
Assault, with dangerous weapon	3	Murder	1
Allowing minors in pool room	1	Malicious injury to real estate	2
Bastardy	12	Non-support	26
Breaking and entering	99	Neglected children	69
Bathing in nude state	3	Obstructing street car	10
Begging	1	Promoting a lottery	2
Capias	18	Polygamy	1
Common drunkard	20	Peddling without a license	23
Conveying leased property	1	Playing cards on the Lord's day	18
Cruelty to animals	6	Receiving stolen goods	6
Dipsomaniac	1	Rape	2
Disturbing public peace	241	Refusing to assist an officer	1
Disorderly house	3	Safekeeping	9
Drunkenness	1,323	Stubborn children	17
Disturbance on a street car	15	Stealing a ride	4
Deserter from United States Navy	3	Suspicious persons	18
Escaped prisoners	8	Selling adulterated food	2
Evading car fare	1	Selling goods with illegal measures	1
Exposure of person	4	Unlawful use of milk cans	2
False pretense	1	Vagrants	10
Forgery	5	Violating City ordinances	111
Fornication	5	Violating butter law	3
Gaming, present at	43	Violation of milk law	3
Gaming on Lord's day	11	Violating terms of probation	12
Having lottery tickets for sale	1	Violating rules of Board of Health	1
Idle and disorderly	6	Violating game law	1
Insane	20	Walking on railroad track	54
Keeping unlicensed dogs	22	Witness	4
Liquor nuisance	8		

Whole number of lodgers, 315.

Males	315	Minors	7
Females	6	White	309
Adults	314	Colored	6

NATIVITY OF PRISONERS.

United States	1,692	Russia	36
Ireland	525	Belgium	1
British Provinces	236	France	1
England	70	Poland	12
Sweden	50	Austria	5
Italy	31	West Indies	3
Scotland	30	Portugal	5
Germany	8	Syria	5
Turkey	12	Norway	5
Greece	10	Wales	4
Denmark	5	China	1
New Zealand	1	Australia	3

OCCUPATION OF PRISONERS.

Agents	16	Lawyers	1
Artists	1	Linemen	1
Bakers	26	Machinists	50
Barbers	20	Marble cutters	2
Brass finishers	6	Masons	32
Bell boys	20	Milkmen	4
Blacksmiths	27	Moulders	22
Butchers	8	No occupation	204
Boiler makers	15	Nurses	4
Bookbinders	15	Painters	70
Cabinetmakers	15	Paper hangers	4
Carvers	2	Peddlers	75
Carpenters	91	Plasterers	10
Cigarmakers	2	Polishers	4
Clerks	48	Printers	36
Confectioners	8	Plumbers	34
Coachmen	4	Piano workers	15
Conductors	2	Potters	6
Contractors	8	Roofers	10
Cooks	13	Rubber workers	46
Coopers	14	Sailors	18
Curriers	9	Salesmen	28
Dressmakers	3	Shippers	8
Domestics	39	Shoemakers	26
Electricians	7	Steamfitters	11
Engineers	17	Stone cutters	15
Expressmen	3	Store keepers	20
Farmers	21	Students	23
Finishers, wood	4	Stubborn children	28
Firemen	12	Tanners	4
Gardeners	15	Tailors	21
Glassb'owers	2	Tinsmiths	13
Glasscutters	2	Trespass	85
Harnessmakers	6	Truants	9
Hostlers	15	Upholsterers	8
Housekeepers	122	Waiters	15
Ironworkers	19	Weavers	5
Janitors	10	Watchmen	1
Jewellers	6	Wireworkers	3
Junk dealers	7	Wood turners	2
Laborers	732	Teamsters	230
Lathers	3	Undertakers	1

MISCELLANEOUS BUSINESS.

Accidents	83	Defective wires	59
Buildings found open and secured	211	Defective streets and sidewalks	1,346
Cases investigated	1,300	Disturbances suppressed	119
Dangerous buildings	5	Dogs killed	17
Dead bodies found	12	Fire alarms given	12
Defective catch basins	23	Fires extinguished without alarm	20
Defective fire alarms and clocks	6	Lost children restored	236
Defective gas pipes	7	Sick and injured persons assisted	59
Defective water pipes	87	Stray teams put up	31
Defective hydrants	6	Street obstructions removed	1
Defective lamps	4,745	Water running to waste	6

Amount of property stolen	$5,532 25
Amount of property recovered	4,911 50
Amount recovered for other cities	2,011 75

CITY PROPERTY IN USE BY POLICE DEPARTMENT.

210	badges	$150 00	1	police van	$300 00
120	belts	137 50	3	police signal systems	12,000 00
120	short billies	60 00	3	patrol wagons	1,000 00
6	bedsteads	36 00	115	revolvers	480 00
5	book cases	40 00		Ropes and stakes	6 00
	Bedding and blankets	50 00	3	robes, carriage	15 00
1	buggy	150 00	1	rogues' gallery	150 00
5	clocks	30 00	2	safes	200 00
2	bureaus	3 00	8	spittoons	2 00
75	chairs	95 00	1	sleigh	25 00
1	carpet	8 00	1	stove	8 00
	Letter press and stand	10 00	2	straps and weights	1 00
200	copies police rules	40 00	1	telephone line	300 00
13	desks	450 00	3	thermometers	2 00
1	easy chair "Matron's"	10 00	6	tables	12 00
5	horses	700 00	40	tin dippers	4 00
6	harnesses	180 00	1	typewritter and desk	140 00
4	halters	1 00	2	umbrella stands	2 00
1	hat rack	3 00	1	wagon van, old	25 00
10	ink stands	5 00	8	waste baskets	3 50
50	lanterns	37 50	4	water coolers	30 00
8	mirrors	16 00		Operating table and chair	37 50
3	maps	15 00	3	medicine cabinets	75 00
10	rugs	30 00	2	wardrobes	15 00
12	pairs handcuffs	36 00	2	wagon jacks	2 00
					$17,128 00

EXPENDITURES.

Boarding horses	$300 00
Buttons	50 00
Boston Elevated Railway Company	300 00
Cambridge Gas Light Company	551 60
Cambridge Electric Light Company	173 14
Cleansing stations	264 65
Cloth for Department	597 68
Clipping horses	12 00
Cleansing carpets	2 10
Directories for Department	35 00

Diaries for Department	$101 13
Expressing	4 55
Feeding prisoners	38 52
Gas Consumers Association	36 00
Hay and grain	630 82
Heating and care of buildings	890 00
Horse hire	7 00
Ice for Department	24 00
Medical attendance	9 00
New England Telephone & Telegraph Co.	399 50
Photographs for rogues' gallery	42 00
Printing	241 23
Policemen, services of	118,392 59
Repairs on wagons	413 10
Repairs on harnesses, one new	113 60
Repairs on revolvers	6 81
Revolvers, new	98 00
Repairs on buildings	165 33
Shoeing horses	145 15
Supplies for stations	505 35
McCaffrey, Hugh, belts	62 68
Gordon Clasp Co., clasps	75 00
Travelling expenses	19 60
Cotton & Gould, stationery	78 87
Salary of Chief of Police	2,000 00
Salary of Deputy Chief of Police	1,500 00
Salary of Captains and Inspector	5,600 00
Jones, Henry C.	617 00
Apel, Frederick	465 00
Appropriation	$134,968 00
Expenditures	134,968 00
Expenditures	$134,968 00
Receipts	4,941 20
Balance showing actual cost	$130,027 80

THE FORCE.

The organization of the force consists of a chief, deputy chief, three captains, one chief inspector with the rank of captain, one assistant inspector with the rank of lieutenant, six sergeants, ninety-one patrolmen, ten reserve officers, four drivers of patrol wagons, two drivers of ambulance, two matrons, and one chief, one captain, four patrolmen on the pension list.

The roster of the department is as follows: —

Chief, HENRY J. CUNNINGHAM

Deputy Chief, WILLIAM F. BATCHELDER

Captains.

John F. Murray — Fred B. Pullen — John J. McBride

Chief Inspector.

James E. Murray

Assistant Inspector.

James M. Keaney

Sergeants.

Richard H. Aylward
Daniel Callahan
James L. McElroy
William H. McMenimen
William Mullett
David A. Stevens

Patrolmen.

Charles F. Aberle
William H. Aberle
James S. Alexander
George T. Barrington
Ernest E. Blanchard
Elbridge S. Blen
Charles E. Bradley
John J. Canney
Thomas M. Campbell
Edward J. Comerford
Michael J. Conry
Timothy Corcoran
John Coulter
Daniel F. Counihan
James A. Cox
John W. Deehan
Anton B. Diehl
Patrick Doyle
Harry W. Davis
Patrick F. Dunlea
Thomas F. Dynan
Frederick M. Ellis
James B. Forristall
Joseph H. Furbush
Michael A. Ginty
Herbert Gordon
William H. Graves
John J. Griffiths
Mertie M. Hackett
James P. Hall
John A. Hezlett
Benjamin F. Higgins
William H. Hill
Robert T. Hixon
James H. H. Holt
Edward F. Horrigan
William H. H. Howe
Patrick J. Hurley
Dexter Jewett
John Kelleher
Michael J. Kelley
Frederick L Ladd
Frank D. LaMarche
Frederick W. Law
Dennis F. Leahy
Timothy F. Leahy
George J. Mahoney
John P. Maloy
Charles C. Marston
Edward J. McCabe
Bernard McCaffrey
Charles J. McCann
Jeremiah McCarthy
John E. McCrehan
Joseph F. McCorry
Richard M. McFadden
William F. McKeown
James E. McNulty
Robert E. Mullen
William N. Mullins
Patrick F. Murray
Simon J. Mulvaney
John P. Neilon
Michael Neilon
Joseph W. Parks
Charles L. Pike
Charles H. Presho
Charles W. Priest
Thomas J. Real
Ralph R. Rice
John W. Roberts
William H. Robertson
Frederick A. Robinson
Bernard J. Roper
Thomas P. Rowe
William H. Rowe
Frank W. Scobey
Benjamin C. Scully
John E. Shaughnessy
John W. Skelly
George Smyth
Joseph C. Temple
David H. Walsh
David L. Walsh
Edward J. Welch
John H. Wells
Orin B. White
John E. Winslow
Charles W. Wyman

Reserve Officers.

Thomas F. Coady
Jeremiah P. McCarthy
Thomas Shea
Frank McArthur
William B. Ginty
John J. Sheehan
Cornelius Sheehan
Augustus C. Largenton
Robert G. Culhane
Timothy Crane

Drivers.

John Coffey
John T. Cook
Dennis J. Sullivan
John Sullivan
Warren H. Dow
George E. Sherman

Matrons.

Elizabeth Doyle
Augusta M. Sterns

Pensioners.

Lothrop J. Cloyes
Henry C. Jones
Edward F. Belcher
Mark J. Folsom
Frederick Apel
Benjamin McKeen

Twenty-nine patrolmen are on duty in the day time, one in the Public Library, one in the City Hall, one detailed as clerk at Police Headquarters, one in Police Station 4, and twenty-four for street duty.

During the night time the deputy chief, six sergeants and seventy patrolmen are on duty, one as house officer in Police Station 1, one as house officer in Police Station 4, two in the wagon houses and sixty-six for street duty.

Two patrolmen are detailed to assist the inspectors.

CHANGES.

During the year seven reserve officers have been promoted to patrolmen, seven reserve officers have been appointed, one chief, one captain, and two patrolmen have been pensioned, one matron resigned, one matron appointed, one patrolman promoted to captain, one lieutenant reduced to patrolman, one patrolman promoted to lieutenant, three sergeants reduced to patrolmen, three patrolmen promoted to sergeants, one patrol driver discharged, one patrol driver appointed.

SIGNAL SYSTEMS.

In the three signal districts during the past year there have been: —

Duty calls by officers	341,581
Telephone calls	21,900
Wagon calls	1,543
Miles run	2,617.71
To fires	8
Sick and injured persons carried to hospital	27
Sick and injured persons carried home	6
Other runs	144

AMBULANCE.

The ambulance has been called to three hundred and twenty-one (321) accidents and fifty-four (54) removals.

MATRONS.

There were two hundred and two (202) females arrested during the year, a decrease of fifty-eight (58) as compared with last year.

UNIFORM CLOTH FOR THE DEPARTMENT.

There has been purchased for the department during the year cloth to the amount of $597.68. The money for the sale of the same to the members of the department has been paid to the City Treasurer.

NO-LICENSE.

It is gratifying to note the satisfactory results which this department has attained under the no-license law. Every endeavor has been made to suppress the illegal sale of intoxicating liquors with the result that the kitchen barroom has almost entirely disappeared from our midst, last year there were twenty-eight convictions for violating the liquor law, while this year there were only eight.

I beg respectfully to make the following recommendations: —

First, that better accommodations be provided for women prisoners during the period of their detention at Station 1. These improvements should be made with a view to providing better facilities for the care of persons who are detained for safe keeping but who are not criminals.

Secondly, that Station 2 be provided with new steel cells. This improvement is much needed as the cells now in use are in a very delapidated condition and occupy a space which could be utilized for nearly twice the number of steel cells, with improved facilities in every respect.

Thirdly, that the entrance to the cell room in Station 2 be changed so as to permit the van wagon to back up to the door instead of the outer side of the sidewalk as at present.

Fourthly, that a new station house be built in North Cambridge, and that District 1 be divided into two parts, so as to admit of an additional District being added to the department.

Fifthly, that a sufficient number of patrolmen be added to the department to admit of the appointing of six lieutenants to do house duty, the sergeants to be placed on the street in charge of the men. This recommendation does not cover the superior officers for District 4 should it be established.

Sixthly, that the rooms occupied by the Overseers of the Poor be devoted to the use of this department. Documents of a valuable character

are constantly increasing and require to be protected from fire by the use of a fire-proof vault.

The business of the Inspectors' Department is such as to require the use of a consultation room.

In concluding this report I desire to extend to His Honor, the Mayor, the City Council, the City Solicitor, and all others who have so kindly co-operated with me in the performance of the duties of my office, my sincere thanks.

HENRY J. CUNNINGHAM,
Chief of Police.

REPORT OF THE SUPERINTENDENT OF PUBLIC BUILDINGS

To the Honorable, the City Council of the City of Cambridge:—

Gentlemen : — In accordance with Section 2, Chapter 13, of the City Ordinances, it becomes my duty to submit to your honorable body the following report of the Building Department of this City for the year 1903, including a detailed report of the Inspector of Buildings.

The office work of this department has been reorganized. New and improved methods of recording and filing have been successfully introduced, and a new system of accounting has been established. The work of the Assistant Inspectors has been rearranged giving more time for inspections, thereby increasing the volume of work performed each day, equal to the work of one additional Inspector.

The Head Janitor of Schoolhouses, who performs his duties under the direction of the Superintendent, has been made one of the working force of this department with a desk in the Superintendent's office. He in common with the Inspectors files daily reports with the Superintendent.

Mr. Chas. H. Hunnewell resigned as Inspector of Plumbing, March 20, 1903. Mr. William Ford, a former Inspector, having passed a civil service examination, was appointed to the position.

Mr. William Sheridan, clerk of the department, succeeded Miss Lillian Hyde, who resigned to fill a clerkship at the Rindge Manual Training School.

Following the custom of previous years an inspection of the City buildings and schoolhouses was made early in the year, in order that this department might have an intimate knowledge of their condition. This inspection revealed the fact that many and extensive repairs were needed both in the City buildings and schoolhouses.

I fully agree with the statement made in the report of the Superintendent of Public Buildings for the year 1902, that the condition of the public buildings of the City of Cambridge is not up to the standard. This is partly due to the lack of sufficient appropriation, consequently little had been done in the way of repairs.

During the past year repairs have been made on twenty-two schoolhouses, many of them quite extensive. On City buildings, on account of the small amount of money available, ($7,000) very little has been done.

The department has been hampered this year owing to the coal strike of last year. Fuel which should have been delivered and paid for in 1902 according to contract, was not delivered until 1903 and payment for these deliveries was made out of the appropriation for 1903. These bills amounted to the total sum of $8,751.70 for schools and $1,383.03 for City buildings. These amounts added to the quantity contracted for and delivered this season make a total for schoolhouses $21,813.70 and for City buildings $2,926.14. The amount paid for coal for schoolhouses deducted from the amount of the appropriation ($49,000) leaves the sum of $27,186.30, from which must be deducted the cost of supplies and lighting, amounting to $5,535.63 for supplies, and $2,354.77 for lighting, leaving $19,295.90 for repairs. The amount paid for coal for City buildings deducted from the amount of the appropriation leaves the sum of $4,073.86 from which must be deducted the cost of supplies and lighting, amounting to $545.95 for supplies, and $1,697.16 for lighting, leaving $1,830.75 for repairs.

Out of the appropriation for schoolhouses about 2,500 desks which were found stored were repaired and varnished, thus providing suitable furniture for schools where additional desks were needed, and nearly the entire number required for the new Kelley School. The balance of the furniture for this school was paid for out of the appropriation for schoolhouses.

A detailed report of the work performed was submitted to His Honor, the Mayor, in September last.

It is with a deep sense of gratification that I received the following, which was adopted at a meeting of the School Board held September 17th:

"The Committee on Schoolhouses respectfully reports that they are gratified to learn that so much has been done in the way of improvements and repairs on many of the schoolhouses as recommended at the close of the school year. They feel bound, however, to call the attention of the Mayor to the condition of the Rindge Manual Training School and the Dunster Buildings, and to the pressing necessity that they be repaired as soon as possible."

(Signed) SANFORD B. HUBBARD,
Secretary of the School Committee.

The suggestions of the School Committee and Superintendent of Schools in regard to repairs proved of great value to me, and I was thereby aided in my efforts.

For the ensuing year a liberal sum should be appropriated in order that still further necessary repairs may be made. Otherwise it is plain that from now on the life of the valuable buildings owned by the City will be shortened many years and soon will become uninhabitable.

VALUE OF GUARANTEE BONDS.

Repairs on the roof of the new Washington School were made this fall, serious leaks having appeared. This roof was guaranteed by the contractors for a term of five years. A demand was made on them to make the repairs. Not complying therewith the surety company was notified that the City would do the work and expect to be reimbursed therefor. This was done and the City received a check for the full amount of its claim from the surety company, thus saving the City expense and for the first time in its history payment was made for defective work after the contractors had been paid.

KELLEY SCHOOL.

Work on this building was suspended in November, 1902, owing to failure of the contractors about this time. On January 23, 1903, a new contract for the completion of the building was made with the Goodwin & Wester Company and work on the building was immediately resumed and pushed with all possible speed. The building was completed about the middle of the following September and was ready for occupancy at the opening of the school term. Water appearing to the depth of three feet in the boiler room on account of the fact that the sewer was not low enough to give proper drainage, it was decided to waterproof this portion of the basement. Accordingly bids were advertised for to do this work. Eight bids were received. The lowest bid was that of Goodwin & Wester Company, the contractors, for the completion of the building, and the contract was awarded to them for the sum of $1,235. Bonds guaranteeing the work for five years were furnished. This extra work was done within the amount appropriated for the erection of the building, although not anticipated at the time the appropriation was made.

The building has proved to be very satisfactory, being well lighted and ventilated and accomodates 800 pupils.

ABANDONED SCHOOL HOUSES.

Acting under an order of the City Council the following abandoned schoolhouses were sold at public auction on May 1, 1903.

Washington School for the sum of	$15,000
Allston School for the sum of	5,100
	$20,100

This amount was added to the appropriation for schoolhouses, Other Expenses and was so expended.

NEW FLETCHER SCHOOL.

Acting under an order of the City Council, approved December 12, 1902, appointing a commission, consisting of the Mayor, Superintendent of Schools and Superintendent of Public Buildings, to procure plans by competition, proposals for plans were advertised for on March 25, 1903, offering to the successful competitor the commission to prepare plans for the building, and for the next best three plans cash prizes. After carefully examining and considering the plans submitted, the plans of Mr. Harry Dustin Joll were unanimously selected by the Commission, and the contract was awarded to him to prepare plans and specifications for the erection of the building. The three cash prizes were awarded as follows: —

First prize, $200, Mr. C. H. McClare.
Second prize, $100, Mr. C. M. Cogswell.
Third prize, $50, Mr. H. M. Ramsay.

On June 12, 1903, bids were advertised for the erection of the building and on June 27th eight bids were received, the highest being $76,038, the lowest that of J. E. Locatelli & Co., $66,262. The three lowest bidders were invited to submit estimates on reductions and the firm of J. E. Locatelli & Co., bid $58,560. The contract was awarded to this firm, a surety bond satisfactory to the Mayor being furnished for the faithful execution of the contract, which was signed July 23, 1903. Work was commenced on the building July 27, 1903.

This building when finished will be the best of its class owned by the City. It will be substantially built, and more nearly fireproof than any other school building in this City. Steel girders thoroughly protected by fireproofing support the floors and roof. The building will be ready for occupancy in a few months. It has now advanced to the plastering stage.

The contract for heating and ventilating was awarded to Huey Bros., contract price $7,577. The plumbing contract was awarded to the same firm, contract price being $3,987. This firm was the lowest bidder on both contracts.

RIFLE RANGE.

During the summer months the Rifle Range at Lexington was repaired and a contract was made with Mr. Anson J. Webb to act as caretaker of the range for the sum of $75 per annum. This arrangement assures the City that its property will receive the care which it should have, and has proved satisfactory to the militia companies using the range.

ARMORIES.

The three armories occupied by the militia companies have been vacated this fall, the companies moving to quarters in the new armory which was completed early in November. This places the entire upper floors of the City buildings in Brattle and Central Squares at the disposal of the City for any uses which may be required. The lease of the Beech Street Armory expires July 1, 1904, this building also being available until that time for any purpose which may arise.

INSPECTION OF BUILDINGS.

During the past year in addition to the regular work of the department as detailed below, all elevators in the City were inspected and almost all were tested. In the cases where the elevators were not tested, certificates signed by some elevator builder guaranteeing the safety of the elevator have been required. With few exceptions the elevators now being operated in this City are in accordance with the requirements of the City Ordinances, thus insuring safety to the public.

Permits issued to operators of elevators	83
Inspections	3,699
Inspections of buildings to be moved	13
Plans rejected	2
Dangerous chimneys	9
Foundations condemned	4
Foundations ordered relaid	2
Permits cancelled	11
Building without a permit	15
Building too near adjoining lot	8
Defective conductors and gutters	2
Building in a dangerous condition	15
Notices served on violators of building ordinance	80

In conclusion I desire to tender my sincere thanks to the Committee on Public Property for their advice and support.

I desire also to express my appreciation of the services rendered and the advice given me by His Honor, the Mayor.

Respectfully submitted, THOS. F. TRACY,

Superintendent of Public Buildings.

BOARD OF EXAMINERS OF PLUMBERS.

As chairman of the Board of Examiners of Plumbers I submit the following report: —

During the year the Board has held meetings at various times, a record of each meeting being kept by the clerk of this department. Mr. John Phelan succeeded Mr. John Crawford as examiner of the Board.

Number of candidates examined for master plumbers license	4
Number of candidates examined for journeymen plumbers license	4
Number of master plumbers license granted	3
Number of journeymen plumbers licenses granted	1

INSPECTION OF PLUMBING.

Number of applications received and permits granted	515
Number of tests and inspections	1,182
Number of jobs found defective or otherwise not in accordance with the plumbing ordinance	14
Number prosecuted for violation of plumbing ordinance	0
Number of master plumbers registered	15
Number of master plumbers licenses renewed	13
Number of journeymen plumbers licenses renewed	30
Number of permits cancelled	2
Number of master plumbers holding certificates	30
Number of journeymen plumbers holding certificates	44
Number of master plumbers holding licenses	31
Number of journeymen plumbers holding licenses	42
Amount received for license fees	$30 50

The following table shows the amount of coal consumed in the various school buildings during the past year: —

	Tons.
Agassiz	60
Boardman	40
Corlett	12
Cushing	12
Dunster	25
Ellis	120
Felton	50
Gannett	50
Gannett (old)	15
Gore	60
Harvard	155
High	290
Holmes	15
Lassell	25
Latin	310
Lowell	20
Merrill	115
Morse	160
Otis	50
Parker	45
Carried forward	1,629

	Tons.
Brought forward	1,629
Peabody	140
Putnam	140
Reed	20
Rindge M. T.	375
Riverside	25
Roberts	140
Russell	115
Sargent	25
Shepard	70
Sleeper	70
Stearns	30
Tarbell	35
Taylor	120
Thorndike	80
Webster	150
Wellington	140
Willard	60
Wyman	40
	3,404

REAL ESTATE AND OTHER PROPERTY BELONGING TO THE CITY.

SCHOOLHOUSES.

	Feet of Land.	Purchase of Land.	Erection of Building.	Valuation of Land.	Valuation of Building.	Valuation of Furniture.
Agassiz	19,689	1874	1875	$8,000	$20,000	$1,215
Boardman	10,018	1866	1868	4,000	13,000	1,290
Bridge	4,646	1836	1836	1,400	500	.....
Corlett	10,000	1880	1880 Purchased.	1,200	3,000	195
Cushing	14,787	1880	1880 Purchased.	1,500	3,000	136
Dana	14,317	1847	1848	4,300	2,000	.....
Dunster	10,000	1857	1871	3,000	3,000	261
Ellis	25,700	1897	1898	6,000	48,000	2,993
Felton	15,090	1847	1848	4,500	6,000	200
Gannett	15,434	1876	1886	3,000	12,000	430
Gannett (old)	....	1864	1865	2,600	2,000	395
Wellington	27,673	1875	1884	5,700	50,000	2,240
Gore	9,900	1871	1871	4,000	50,000	825
Harvard	20,494	1870	1871–1899	12,000	65,000	3,769
High	74,366	.....	1891	40,900	220,000	9,220
Holmes	11,182	1870	1870	5,000	5,500	275
Kelley	25,230	1900	1902	9,600	60,900	4,380
Lassell	10,000	1880	1880	3,000	8,000	272
Latin	79,579	1894	1897	43,800	225,000	27,150
Lowell	12,033	1883	1883	3,600	5,500	402
Merrill	37,828	1864	1864	19,000	45,000	1,425
Morse	25,650	1889	1890	7,000	73,000	2,040
Otis	8,270	1857	1859	4,000	20,000	930
Parker	12,319	.....	1893	7,000	15,000	710
Peabody	21,813	1887	1888–1898	9,800	68,000	3,340
Putnam	14,400	1896	1889	9,800	64,500	2,550
Reed	12,000	1868	1868	1,200	4,000	310
Rindge, M T	81,128	.....	1887	44,000	56,000	8,000
Riverside	11,198	1868	1868	3,000	5,000	330
Roberts	16,400	1898	1898	12,000	48,000	3,003
Russell	33,073	1895	1896	6,000	40,000	2,440
Sargent	9,995	1838	1838	5,000	3,000	255
Shepard	14,755	1855	1856–1873	11,000	26,000	1,047
Sleeper	21,284	1894	1894	5,000	24,000	1,190
Stearns	10,050	1812	1841–1843	5,000	3,000	322
Tarbell	19,500	1878	1882	4,900	7,000	355
Taylor	23,592	1894	1895	6,000	36,000	1,720
Thorndike	10,027	1860	1860–1875	4,000	30,000	1,676
Washington	16,000	1900	1901	12,800	80,000	3,550
Webster	25,839	1866	1873–1885	9,000	50,000	3,350
Willard	20,079	1869	1870	7,000	25,000	1,350
Wyman	14,347	1871	1871–1886	4,500	5,000	555
Elm Street	18,360	1902	1903	12,000	44,000	.....
				$376,100	$1,573,900	$96,896

CITY BUILDINGS.

	Feet of Land.	Purchase of Land.	Erection of Building.	Valuation of Land.	Valuation of Building.	Valuation of Furniture.
City Hall	47,878	1888	1888	$72,000	$200,000	$29,800
Brattle Sq. Bldg.	16,153	1873	1874	16,000	60,000	2,500
Central Sq. Bldg.	13,028	1872	1873	10,500	50,000	2,436
Station 3	4,220	1862	1870	2,100	20,000	800
Station 4	6,316	1872	1873	3,700	5,300	300
				$104,300	$335,300	$35,836

Voting booth, corner Cambridge and Hampshire Sts.	$500 00	
Portable voting booth, junction Sherman and Garden Sts.	200 00	
Voting compartments and fixtures (380) . . .	1,900 00	
		$2,600 00

OLD MATERIAL IN STORE HOUSE.

Old school desks	$1,000 00	
1 tubular boiler and fittings	300 00	
1 stove (large)	12 00	
Plumbers' material	100 00	
Old iron	15 00	
Old doors	10 00	
Davidson steam pump (at R. M. T. S.)	100 00	
		$1,537 00

RIFLE RANGE.

Buildings and equipment	$1,000 00

SCHOOLS — 1902–1903 — CARE AND REPAIR.

NAMES.	FUEL.			REPAIRS.			SUPPLIES.				EXTRA LABOR.		Janitors.	Total.
	Coal.	Charcoal.	Wood.	On Building.	On Furniture	On Heating App's.	Furniture.	Gas.	Electric.	Sundries.	Help.	Sundry.		
Agassiz	$478 35	$4 50	$4 50	$114 74	$3 85	$15 18		$5 60		$11 90			$624 00	$1,26 62
Allston				22 20								$113 55		135 75
Boardman	136 50	7 50	8 50	169 73	59 92	246 64		11 30		1 70		4 00	624 00	1,269 79
Corlett	116 10		10 50	89 37	2 00								260 00	477 97
Cushing	194 00		14 75	88 75	2 00					8 35		5 09	260 00	572 94
Dana				5 81				50						6 31
Dunster	172 80		4 50	38 33									416 00	631 63
Ellis	1,139 64	6 00	3 50	569 14	5 50	62 45		6 40		11 55		2 50	832 00	2,638 68
Felton	468 30	10 50	8 50	61 14	22 57	4 50		12 70		2 20			416 00	1,006 41
Gannett (new)	218 41	9 00	4 50	120 76	10 97	14 25		4 90		4 85			520 00	907 64
" (old)	60 45			137 24		7 85		1 60					312 00	519 14
Gore	185 29		3 50	152 90	23 08	124 93		25 50		5 35			780 00	1,300 55
Harvard	1,147 66	4 50	7 00	1,174 90	8 50	85 96		5 00	$10 09	2 75		4 50	1,196 00	3,646 86
High	936 16		7 00	686 21	2 13	104 98	$25 50	31 40	570 88	27 65	$996 00	42 00	1,800 00	5,229 91
Holmes	219 85	9 00	8 50	481 93				11 40		25		7 00	364 00	1,101 93
Lassell	321 25	4 50		71 65		4 50	44 55			12			416 00	862 57
Latin	1,514 46	7 50	7 00	223 49	19 68	8 39		21 30	323 36	105 58	1,544 00	279 00	1,800 00	5,853 76
Lowell	277 35	4 50	13 00	36 26		75		7 80		2 08			364 00	705 74
Merrill	727 14		3 50	371 55	15 60	13 73		11 50		2 85			780 00	1,925 87
Morse	547 15	4 50	7 00	872 02	62 95	5 00		29 10		7 60			1,144 00	2,679 32
Otis	521 40	12 00	4 50	104 62	16 65	35 05		33 00		9 05			624 00	1,360 27
Parker	525 00	6 00	8 75	106 93	8 55	17 53		11 10		50			520 00	1,204 36
Peabody	1,194 93	6 00	3 50	500 68	23 30	30	106 70	5 60	11 70	24 25			1,144 00	3,020 96
Putnam	1,223 86	10 50	7 00	488 74	111 93	321 78		47 50	200 23	9 85		93 00	1,144 00	3,658 39
Reed	214 92	4 50	8 50	909 35	4 32	5 90	82 30						416 00	1,645 79
Rindge, M. T.	2,025 34			533 86	21 30	18 85	16 25	29 20	360 43	20 60	812 79	157 55	1,655 20	5,651 37
Riverside	283 96	3 00	9 00	19 17	1 00					50			390 00	706 63
Roberts	409 90	4 50	7 00	191 90	38 55	3 75	7 20	150 70		1 15	68 00	3 85	832 00	1,718 50
Russell	704 25		7 50	518 33	8 84		13 50	18 80		7 10			832 00	2,110 32
Sargent	249 90	4 50	4 50	189 37	13 28	18 00	43 00	22 40		50			624 00	1,169 45
Shepard	578 56		3 50	200 48	1 50	83 42		17 50	5 18	18 95		46 50	780 60	1,735 59
Sleeper	683 55	7 50	22 00	149 63	14 10	55 05		2 20		50			624 00	1,558 53
Stearns	307 55	6 00	4 50	56 69	6 73	14 85		15 90		25			364 00	776 47
Tarbell	334 50	3 00	11 75	461 47	18 75					50			390 00	1,219 97
Taylor	358 95		8 00	190 53		283 81		18 30		9 85			780 00	1,649 44
Thorndike	620 90	11 25	17 00	240 63	14 50	214 96	87 25	54 50		75			728 00	1,989 74
Washington (old)				5 20				20				131 10	164 00	300 50
" (new)		1 00		179 04	298 12	13 16	536 14	11 70		29 63		73 00	1,092 00	2,233 79
Webster	1,263 30	13 50	9 00	631 08	21 61	149 90		27 90	77 20	5 35	62 00		1,122 00	3,382 84
Wellington	534 60	19 50	9 00	209 65	3 00	62 05		20 10		8 55		3 75	780 00	1,650 20
Willard	538 38	4 50	7 00	89 11	20 59	102 98		26 80		2 01			780 00	1,571 37
Willow (Kelley)				565 94	487 70		2,841 02			152 50		365 95	300 00	4,713 11
Wyman	379 09	4 50	9 00	33 80		66 00	14 40			50			520 00	1,027 29
All Schools				6 78	164 40			8 80	87 50	1,220 20	179 50	934 90	1,028 00	3,630 08
	$21,813 70	$193 75	$276 75	$12,071 10	$1,537 47	$2,166 45	$3,817 81	$708 20	$1,646 57	$1,717 82	$3,662 29	$2,267 24	$30,541 20	$82,420 35

CITY BUILDINGS, CARE AND REPAIR.

NAMES.	FUEL.			REPAIRS.			SUPPLIES.				EXTRA LABOR.		Janitors.	Total.
	Coal.	Char-coal.	Wood.	On Build-ing.	On Fur-niture.	On Heating App'ts.	Furni-ture.	Gas.	Elec-tric.	Sun-dries	Help.	Sundry.		
Brattle Square.....	$908 77	$4 50	.....	$318 02	$ 20	$ 6 75	.....	$153 80	$109 01	$28 60	$179 00	$476 00	$796 00	$2,980 65
Central Square	454 50	4 50	8 00	48 22	....	10 37	.....	43 80	336 00	12 70	.....	103 00	1,332 94	2,354 03
City Hall.....	1,190 90	7 50	....4....	492 07	192 08	78 09	52 30	17 80	671 15	449 84	3,908 74	425 51	993 75	8,479 73
Miscellaneous Buildings..	371 97	.....	.....	306 48	.....	88 68	.....	365 60	.....	2 51	....	39 93	736 00	1,911 17
	$2,926 14	$16 50	$8 00	$1,164 79	$192 28	$183 89	$52 30	$581 00	$1,116 16	$493 65	$4,087 74	$1,044 44	$3,858 69	$15,725 58

The following table shows the number of permits granted in each Ward and the use for which they are intended: —

	WARDS.											
	1	2	3	4	5	6	7	8	9	10	11	Total.
Additions	12	12	8	11	7	20	18	7	10	7	11	123
Alterations and repairs	8	9	6	9	5	7	5	10	7	4	8	78
Apartments and dwellings	3	....	4	5	5	4	3	8	30	11	15	88
Carriage houses	....	....	2	....	1	1	....	....	....	1	...	7
Chimneys and stacks	2	1	....	1	1	2	1	1	1	....	...	10
Dynamos, motors and engines	8	1	1	5	1	3	2	1	2	....	2	26
Factories	5	1	....	6	....	....	....	....	....	....	....	12
Foundations	2	...	2	2	1	1	....	1	1	2	2	14
Heating apparatus	1	1	1	1	4	9	5	3	2	1	2	30
Stables	1	....	....	2	....	1	1	2	2	1	....	10
Schools	....	....	1	1	....	....	....	....	...	....	....	2
Stores and offices	1	1	1	....	2	4	2	....	1	2	....	14
Storehouses	6	....	2	3	....	2	1	1	3	....	....	18
Rased	6	....	2	12	5	....	3	1	2	....	....	31
Miscellaneous	3	3	3	11	3	9	6	4	2	5	7	56
Totals	60	29	33	69	35	63	47	39	63	34	47	519

Number of permits granted for each month for the years 1902 and 1903: —

	1902.	1903.
December	37	26
January	36	21
February	18	22
March	56	36
April	83	77
May	73	61
June	70	45
July	55	47
August	53	50
September	45	39
October	36	59
November	45	36
Totals	607	519

Cost of building operations for previous years: —

1897	$2,377,650 00
1898	1,644,775 00
1899	1,759,895 00
1900	2,266,615 00
1901	1,664,890 00
1902	2,232,365 00

COST OF BUILDINGS ERECTED IN 1903.

	Ward 1.		Ward 2.		Ward 3.		Ward 4.		Ward 5.		Ward 6.	
	New.	Additions and Repairs.	New.	Additions and Repairs.	New.	Additions and Repairs.	New.	Additions and Repairs.	New.	Additions and Repairs.	New.	Additions and Repairs.
December	.....	.....	.....	$150	$80,280	.....	$60,000	$6,550	.....	$10	$9,000	$1,400
January	.....	$3,000	.....	1,000	3,500	.....	.....	.....	$5,500	75	7,900	900
February	.....	1,550	$800	.....	450	$1,000	.....	325	.....	.....	.....	1,650
March	$4,500	500	.....	.....	6,575	.....	7,600	700	6,500	100	.....	755
April	3,300	8,900	8,500	1,335	150	250	930	2,140	6,635	740	.....	15,415
May	1,100	850	.....	1,100	.....	1,815	3,050	1,075	.....	7,035	12,600	1,300
June	61,100	850	.....	1,955	.....	.....	.....	.....	620	1,800	7,520	4,550
July	125	5,275	300	125	.....	2,050	7,550	975	41,260	1,300	134,985	500
August	10,510	7,000	.....	285	9,000	430	64,800	1,200	2,520	600	8,000	900
September	.....	10,175	100	530	7,000	2,865	.....	50	38,000	575	.....	550
October	11,325	2,250	.....	775	10,000	8,325	32,650	4,300	.....	350	7,600	550
November	27,000	13,635	45	180	.....	.....	365	300	.....	350	1,000	1,150
	$118,960	$53,985	$9,745	$7,435	$116,955	$16,735	$176,945	$17,615	$101,035	$12,935	$188,605	$29,620

COST OF BUILDINGS ERECTED IN 1903 — *Continued.*

	Ward 7.		Ward 8.		Ward 9.		Ward 10.		Ward 11.		Totals.	
	New.	Additions and Repairs.	New.	Additions and Repairs.	New.	Additions and Repairs.	New.	Additions and Repairs.	New.	Additions and Repairs.	New.	Additions and Repairs.
December ..	.....	$800	.....	$550	$7,555	.....	$2,850	$75	.....	$200	$159,685	$9,735
January	.....	172	$23,500	300	3,000	.....	4,000	150	$4,200	25	51,600	5,622
February....	$300	.....	.....	50	40	$100	11,000	.....	.....	.....	12,590	4,675
March.....	1,620	825	.....	900	13,700	1,100	500	1,500	6,000	100	46,995	6,480
April	15,136	1,435	10,000	3,600	2,300	5,550	20,000	2,300	6,100	1,300	73,051	42,965
May.....	6,924	2,827	9,000	750	38,800	25	.....	.....	8,700	230	80,174	17,007
June.....	.....	120	6,000	550	45 025	475	3,500	100	5,000	.....	128,765	10,400
July.....	800	.....	.....	2,800	19,225	2,400	8,500	75	.....	.....	212,745	15,500
August.....	10,875	500	.....	50	24,000	960	100	1,300	.....	625	129,805	13,850
September..	500	.....	5,000	700	24,500	900	400	450	3,600	465	79,100	17,260
October.....	565	75	.....	200	19,530	.....	7,500	800	5,310	1,185	94,480	18,810
November ..	.....	815	1,400	200	.....	.....	10,700	2,000	.....	260	40,510	18,890
	$36,720	$7,569	$54,900	$10,650	$197,675	$11,510	$69,050	$8,750	$38,910	$4,390	$1,109,500	$181,194

REPORT OF THE COMMISSIONER FOR THE BOSTON AND CAMBRIDGE BRIDGES

CAMBRIDGE, MASS., December, 1903.

To the Honorable, the Mayor and City Council of the City of Cambridge: —

GENTLEMEN: — The Commissioner for the Boston and Cambridge Bridges having charge of the Harvard, West Boston, Craigie, Prison Point, Brookline Street, River Street, Western Avenue and North Harvard Street bridges, submits his annual report of the matters pertaining to said bridges.

HARVARD BRIDGE.

A portion of the deck on the draw being decayed, especially under the rails of the L road, it was replaced by laying down four-inch plank and covering that with three-inch plank sheathing. This work was done without delaying either the cars or vehicles. In doing this work new timbers were put in where necessary. The deck of the draw ought to be reconstructed at once. The machinery for moving the draw was repaired, and new oak headers at each end of the draw were put in place.

The traffic over the bridge seems to be increasing and the sidewalks are used a great deal for promenading. The asphalt sidewalks are cracked and broken and not very safe to walk on. In a number of places where the plank under the asphalt was decayed it was repaired by putting down four-inch plank. The present sidewalk ought to be taken up and hard pine plank put in its place. It will be more lasting than to try to renew the present covering, as the depth of surface is not sufficient to make a good job.

The deck of the draw-pier is decayed and it will have to be replanked this next year. The iron fence ought to be painted, as in places it is getting very rusty.

The wooden blocks put down to take the place of the sheathing formerly used on the roadway have now been in use about eighteen months and are wearing well. It is a great improvement over the old and unsatisfactory roadway formerly used on the bridge, that would have had to be replanked twice a year at an expense of about seven thousand

dollars. The wooden pavement requires less cleaning; where we used to clean plank roadway once a week, and sometimes twice, we now clean the bridge only once a month.

The electric lights on the bridge are giving very good satisfaction.

Ordinary repairs, cleaning globes, sweeping, and cleaning snow from the sidewalks and draw, are done by the draw-tenders employed on the bridge.

There have been many more openings of the draw this year than in former years, on account of the scows taking material dredged from below Harvard Bridge to the new park being built on the Cambridge side of the river.

WEST BOSTON TEMPORARY BRIDGE.

The deck of the bridge and draw where decayed was renewed by putting down four-inch spruce plank, and the surface of the bridge and draw for the entire length was sheathed with two-inch spruce. New flaps to the draw were made and put in place.

The draw-tenders do all ordinary repairs, attend to the opening of the draw (and they have a great many), clean and sweep the sidewalks in summer, and remove the snow from sidewalks and draw in winter.

The sidewalk was partly replanked with three-inch spruce. Two-inch oak planks were put on the two ends of the bridge next to the stone paving of the approaches.

CRAIGIE BRIDGE.

A new sidewalk two hundred and fifty feet long was built on the up-stream Boston end of the bridge by putting in new timber, new deck plank and a brick surface; a new fence was built and painted; and the roadway, sidewalks and fences on Cambridge end of bridge were repaired. An iron plate was placed under main posts of draw to keep it from settling; a new deck was laid over the draw and it was sheathed three times. The machinery connected with engine to move the draw was repaired.

Ordinary repairs, sweeping sidewalks and keeping snow and ice from sidewalks, draw and piers, are done by the draw-tenders employed on the bridge.

Some repairs to the bridge on the Cambridge end will have to be done for the safety of the bridge. We do not intend to do any more than is necessary, as we expect the Commissioners who are to build the dam will soon begin work and assume control of the old bridge.

PRISON POINT BRIDGE.

We repaired draw and bridge; sheathed draw twice; built a small house on pier to hold coal; painted draw-tenders' house inside and outside, and also small house connected with it. Draw-tenders do all ordinary repairs, sweep the draw and keep it free from ice and snow.

Since my last report the Boston & Maine Railroad have built a temporary overhead bridge and draw up-stream that connects with a permanent one that is built of iron, commencing near the prison in Charlestown and ending near draw-tenders' house. It is expected the overhead iron bridge to connect with the part now built will be completed in two years. The end of this bridge will connect with the pier now built at Bridge Street, East Cambridge, directly opposite where a bridge will be built across the Charles River to Commercial Avenue, Cambridge.

BROOKLINE STREET BRIDGE.

We sheathed almost the entire surface of the roadway, repaired draw and sidewalks, put in new guards to draw and shingled house occupied by draw-tenders. The bridge is swept once a week in summer, and in winter the sidewalks are kept free from snow and ice, — this work, with ordinary repairs, is done by the draw-tenders employed on the bridge.

The petition that was presented to the City Council requesting that a double track be laid over the bridge to connect with cars running direct to Boston, has not been acted on as yet.

There have been hearings before the Railroad Commissioners in regard to a new bridge to take the place of this old bridge, but no final action has been taken. It seems probable that a new bridge will be built at grade, and if so it will be a great accommodation to the people in that section of the City. It seems to me that a new bridge ought to be built.

There have been more openings of the draw this year than last.

RIVER STREET BRIDGE.

We put in new decking and covered the whole with two-inch spruce plank; repaired draw, put in new flaps and repaired sidewalks. The down-stream draw pier being very much decayed, we took out all the old plank, pieced out the timber where necessary, and covered the whole pier with new two-inch spruce plank.

The end wall on the Boston side of the bridge fell, and we had the wall and stone pier rebuilt and pointed with Portland cement.

The draw-tenders on this bridge also take care of Western Avenue bridge. They sweep the bridges in summer when necessary, and keep the sidewalks free from snow and ice in winter, and do ordinary repairs.

There have been a great many more openings of the draw this year than last year.

WESTERN AVENUE BRIDGE.

On the roadway four-inch plank was put down for decking and covered with two-inch sheathing; new flaps were made for the draw, and the draw was sheathed. The draw pier was repaired and new capping put down. The stone wall under the bridge was relaid and other parts of the wall pointed with cement. The machinery on the draw was repaired and a new pile put in to protect guard to bridge.

The draw-tenders sweep the bridge and sidewalks and clean snow from draw and sidewalks.

River Street bridge and Western Avenue bridge are old bridges; they require constant care to keep them in repair so no accidents will occur.

There have been more openings of draw this year than last.

NORTH HARVARD BRIDGE.

We put new capping on pier and sheathed pier, roadway and draw of bridge with two-inch spruce. Put in new flaps to draw, and had the wall under Cambridge side of the bridge rebuilt and cemented, and the stone pier under the Boston side repaired and cemented. The bridge is in good condition as far as safety is concerned.

The draw-tenders sweep the bridge and draw every week in summer and keep it free from snow and ice in winter. They also do all the carpenter work required.

REVENUE.

The amount of revenue received during the year was $797.82. One-half of the same was paid to the City Treasurer of Cambridge and one-half to the City Collector of Boston.

Respectfully submitted,

WILLIAM J. MARVIN
Bridge Commissioner.

December 1, 1903.

NUMBER OF TIMES THE DRAWS IN THE BOSTON AND CAMBRIDGE BRIDGES HAVE BEEN OPENED, AND THE NUMBER OF VESSELS WHICH HAVE PASSED THROUGH FOR THE YEAR BEGINNING DECEMBER 1, 1902, AND ENDING NOVEMBER 30, 1903.

DATE.	CANAL OR CRAIGIE'S.		HARVARD.		PRISON POINT.		WEST BOSTON.		RIVER STREET.		BROOKLINE STREET.		BOYLSTON STREET.		WESTERN AVENUE.	
December 1, 1902. November 30, 1903.	No. of Draw Openings.	No. of Vessels Passing Through.	No. of Draw Openings.	No. of Vessels Passing Through.	No. of Draw Openings.	No. of Vessels Passing Through.	No. of Draw Openings.	No. of Vessels Passing Through.	No. of Draw Openings.	No. of Vessels Passing Through.	No. of Draw Openings.	No. of Vessels Passing Through.	No. of Draw Openings.	No. of Vessels Passing Through.	No. of Draw Openings.	No. of Vessels Passing Through.
December, 1902	220	352	35	41	76	129	48	77	14	20	29	44	10	14	10	14
January, 1903	178	300	40	62	78	136	36	68	20	30	30	55	..	..	..	..
February, "	154	248	23	33	59	99	23	38	4	7	4	7	2	4	2	4
March, "	161	254	40	60	64	114	42	67	26	39	24	39	17	24	14	21
April, "	220	371	54	83	80	149	51	83	34	48	32	49	12	19	10	16
May, "	294	463	46	73	31	53	88	256	37	55	40	56	22	34	22	34
June, "	217	333	57	79	36	61	70	111	43	69	44	70	12	29	37	59
July, "	264	400	48	63	37	91	46	70	20	33	20	36	9	13	14	23
August, "	301	439	131	152	39	75	89	142	26	45	69	349	10	17	24	42
September, "	343	503	127	149	33	67	67	115	33	55	41	116	19	32	21	38
October, "	282	477	218	245	25	45	207	423	57	130	79	211	20	31	41	107
November, "	203	333	187	205	18	36	70	117	27	45	47	151	7	10	12	20
Totals.....	2,837	4,473	1,006	1,245	576	1,055	837	1,567	341	576	459	483	140	227	207	378

REPORT OF THE CITY MESSENGER

OFFICE OF CITY MESSENGER,
CAMBRIDGE, MASS., December 1, 1903.

To the Honorable, the City Council:—

GENTLEMEN:—In compliance with the provisions of Section 3, Chapter 8, of the "Revised Ordinances of 1892" the City Messenger has the honor to submit his second annual report for the year ending November 30, 1903.

With regard to the purchase and delivery of stationery I would submit the following:—

Stock of stationery on hand December 1, 1902	$527 34
Purchased during the year	1,085 11
	$1,612 45

Delivered to the heads of departments as follows:—

Assessors' Department	$107 37
Auditing Department	52 23
Board of Health	26 54
Board of Survey	75
Cemetery Department	17 45
City Clerk Department	101 25
City Clerk Department (Elections)	39 04
City Messenger Department	95 22
Clerk of Committees Department	89 94
Contingent Fund (City Clerk)	20 30
Electrical Department (Wires)	6 02
Electrical Department (Lamps)	35 42
Engineering Department	39 34
Executive Department	60 60
Fire Department	5 11
Inspector of Milk and Vinegar	11 35
Law Department	49 85
Overseers of Poor	15 00
Park Department	58 23
Police Department	80 08
Sealer of Weights and Measures	10 84
Sewer Department	8 22
Soldiers' Aid Department	9 42
Street Department	65 11
Superintendent of Public Buildings	54 09
Registrars of Voters	16 88
Treasury Department	37 59
Water Department	39 24
Stock on hand December 1, 1903	459 97
	$1,612 45

During the year Annual Documents have been received from the following cities and towns and are on file in the reference library:—

Bangor, Me., 1902.
Belmont, 1902.
Beverly, 1902.
Brockton, 1902.
Brookline, 1903.
Burlington, Vt., 1902.
Boston, 1902-3.
Chicopee, 1902.
Chelsea, 1902.
Conn. State Manual, 1903.
Everett, 1902.
Fall River, 1902.
Fitchburg, 1902.
Gloucester, 1902.
Haverhill, 1902.
Holyoke, 1902.
Lawrence, 1902.
Lowell, 1902.
Lynn, 1902.
Marlborough, 1902.
Medford, 1903.
Melrose, 1902.
Montpelier, Vt., 1902.
Mass Public Documents, 1902.
Nashua, N. H., 1902.
New Bedford, 1902.
Newburyport, 1902.
Newton, 1902.
Newport, R. I., 1902.
North Adams, 1902.
Northampton, 1902.
Pittsfield, 1903.
Portsmouth, 1902.
Providence, R. I., 1902.
Quincy, 1902.
Salem, 1902.
Somerville, 1902.
Springfield, 1903.
Taunton, 1902.
Waltham, 1902.
Watertown, 1903.
Woburn, 1902.
Worcester, 1903.
Winchester, 1902.

Respectfully submitted,

FRANK T. EVANS,
City Messenger.

REPORT OF THE TRUSTEES OF THE DOWSE INSTITUTE

CAMBRIDGE, December 1, 1903.

To the Honorable, the City Council:—

The Board of Trustees of the Dowse Institute respectfully reports that a course of six free lectures and one entertainment was given in Union Hall beginning January 6 and ending February 17, 1903.

An attested copy of the accounts of the Treasurer is herewith submitted showing the amount of receipts and expenditures.

FRANK A. ALLEN,
W. A. BULLARD,
GEO. HOWLAND COX,
} *Board of Trustees.*

W. A. BULLARD, TREASURER IN ACCOUNT WITH DOWSE INSTITUTE.

Dr.

1903.		
To Balance		$10 25
City of Cambridge, interest on fund one year		600 00
		$610 25

Cr.

1903.	
By Cambridge Chronicle, advertising	$10 00
Cambridge Tribune, advertising	10 00
J. H. Ford, printing	9 75
Ushers	14 00
Doorkeepers	21 00
R. N. Burns, moving piano	6 00
Union Hall, rent	210 00
Rev. H. G. Spaulding, lecture	35 00
Rev. Ross C. Houghton, lecture	35 00
Earnest Ingersoll	50 00
P. Louter Wessels	50 00
The Floyds, entertainment	50 00
H. H. Clayton, lecture	35 00
John W. Fairbanks, lecture	40 00
Balance	34 50
	$610 25

ATTEST: W. A. BULLARD,
Treasurer.

Audited:
GEO. HOWLAND COX.

REPORT OF THE INSPECTOR OF ANIMALS

To the Honorable, the City Council: —

Gentlemen: — In compliance with the City Ordinance, I have the honor to present my annual report of Inspector of Animals and Veterinarian for the City of Cambridge for the year ending November 30, 1903.

I have made a general inspection of all the cows in the City, and had two, suffering with tuberculosis, killed. There were no cases of foot and mouth disease.

There was one dog killed and reported as having rabies, but a thorough examination of his brain and spinal column at the Harvard Medical School proved that such was not the case.

The number of cases of glanders among the horses in the City has increased to an alarming extent.

I have ordered the watering-troughs to be washed out at least every other day, and some every day.

The State has thoroughly fumigated the stables from which the glandered horses have been taken and intends to disinfect the blacksmith shops.

I have examined 500 horses in stables where there have been cases of glanders.

Number of horses quarantined	60
" " " killed	54

The City horses have been free from any contagious disease.

I have made in all 513 visits, and examined 14 horses for soundness.

Appropriation		$800 00
Salary	$700 00	
A. Cunningham	36 70	
W. A. Claflin	56 95	
E. H. La Pierre	60	
Balance on hand	5 75	
		$800 00

Thanking His Honor, the Mayor, and members of the City Council, I am,

Very respectfully yours,

CHARLES E. HADCOCK, M. D., V.,

Inspector of Animals and Veterinarian.

November 30, 1903.

REPORT OF THE BRIDGE CHARITABLE FUND

To the Honorable City Council: —

The Trustees of the Bridge Charitable Fund submit herewith the twenty-seventh annual report relative to this Fund.

The amount on deposit in the Cambridgeport Savings Bank to the credit of the Fund July 18, 1902 was	$4,211 98
Interest added since annually to July 18, 1903	148 68
Amount on deposit at the date last named	$4,360 66

The purpose for which this Fund was established was briefly stated in the report of the Trustees for the year 1902, and in many of the former reports of preceding years its history has been given in detail.

Particular mention was made in the last report of the fact that the sum of $2,011.06 was due at the close of the year 1902, from the amount then standing to the credit of the fund, to the Overseers of the Poor, to be by them used for the "deserving poor of the City." To the amount above stated there should be added the sum of $99.00, being two-thirds of last year's interest. This additional sum increases the indebtedness to the Overseers of the Poor to the sum of $2,110.16, which sum should be withdrawn from the bank and distributed according to the wishes of the donor.

The actual condition of the Fund should therefore be stated as follows: —

Amount on deposit	$4,360 66
Amount due Overseers of the Poor	2,110 16
Balance of amount belonging to the Fund	$2,250 50

The Trustees have little duty to perform in connection with this Fund beyond that of seeing that it is kept up as the conditions of the bequest require. In fullest sympathy with the feelings of the donor, in establishing this charity, we also would cherish the fond hope that it may prove an incentive to the liberal and philanthropic, to enlarge the Fund by their contributions, and that the same may be so wisely managed that it shall in time to come afford relief to many worthy but unfortunate persons.

JOHN H. H. McNAMEE,
TIMOTHY W. GOOD,
EDWARD E. CLARK,
Trustees of Bridge Charitable Fund.

REPORT OF THE BOARD OF SURVEY

City of Cambridge, December, 1903.

The Board respectfully submits its third annual report: —

In January, John T. Scully was appointed by His Honor, the Mayor, to be a member of the Board to succeed Edwin D. Mellen whose term expired at the end of the month. The Board organized in the month of February by the election of William E. Doyle as President, and John McDuffie as Clerk. At the same time the action taken at the last meeting in the year 1902, in the approval of the plan of the proposed re-location of De Wolfe and Bow Streets, was considered and it was "Voted to rescind the vote of the Board passed December 30, 1902, relative to the proposed widening and re-location of De Wolfe and Bow Streets."

Since this latter vote no further action has been taken with reference to the laying out of these streets.

An important modification of the Act of the year 1900 establishing the Board of Survey in the City of Cambridge, was made by Chapter 436 of the Acts of the Legislature of 1903. The amended Act is as follows: —

[Chap. 436.]

An Act relative to the construction and extension of streets in the city of cambridge.

Be it enacted, etc., as follows: —

Section 1. Any person contemplating the laying out or constructing of a new way, or desiring the extension of an existing way, in the city of Cambridge, may submit a plan thereof to the board of survey of the said city, made in accordance with such rules as the said board may prescribe, with a petition for the approval of the plan. Thereupon the said board shall give notice of a hearing upon the said plan and petition by publication once a week for two successive weeks in a newspaper published in said city, and seven days at least previous to the date of the hearing, by written notice thereof either left at the usual place of abode of every owner of land over which such new way or extension of any existing way is contemplated, or delivered to every such owner in person or to his tenant or authorized agent. Thirty days at least shall elapse between the first publication of the notice and the date of the hearing, during which time the board shall keep the plans open for public inspection. After the hearing, which shall be given at the date stated in the notice, and which may be adjourned if necessary, the board shall, if it deems that the interests of the city so require, approve the said plan,

altering it as to situation, width, grade or otherwise, as it may deem necessary. The plan shall then be signed by the board, marked as made under the provisions of this act, and filed in the office of the city engineer, who shall attest the date of the filing.

SECTION 2. From time to time and as they may deem that the present or future interests of the public require the said board may cause to be made plans of any territory in the city, clearly showing contemplated new ways or extensions of existing ways, including the width and grade thereof, whether or not such ways have already been marked out upon plans approved under the provisions of section one hereof. But such new ways shall be planned as aforesaid only in parts of the city which the said board shall determine to be outlying or undeveloped for business or residential purposes; and its determination on this point shall, for the purposes of this act, be final. The notice and hearing described in section one hereof shall be given in respect to plans made in accordance with this section, and upon their approval they shall be signed, filed and dated as above provided.

SECTION 3. After the passage of this act no new way shall be laid out or constructed as and for a public way, and no existing way shall be extended as and for a public way, in the city of Cambridge, except in accordance with plans approved as aforesaid, or made under the authority conferred by the following section.

SECTION 4. If the city council of the said city determines that public necessity or convenience requires any existing public way to be altered, widened, located anew or changed in grade, a plan showing the proposed alteration, widening, locating anew or change in grade, with any petition or other document relating thereto, shall be referred to the said board of survey, who shall give a hearing thereon, and notice of the same, in the manner specified in section one hereof. After such hearing the said board shall report to the city council its conclusions as to the said plan, with any recommendations or suggestions which it may deem expedient; and after the receipt of the said report the city council may alter, widen, locate anew or change the grade of the said way in such manner as it may deem best.

SECTION 5. After the making and filing of any plan in accordance with section one or section two hereof, the marking out of any new way or the extension of any existing way on the said plan shall operate as a restriction on the land thus appropriated to such new or extended way; and no building or other structure shall be placed thereon without the written consent of the board of survey or a majority thereof. Any person alleging damage to his property as resulting from the restriction created as aforesaid may, within two years after the filing of such plan, petition the city to estimate the same, and the city shall thereupon estimate the damages, if any, so sustained; and if the petitioner is aggrieved in the estimation of his damages as aforesaid he may within said two years further petition the superior court for the county of Middlesex to have his damages determined by a jury in the manner and subject to the set-of of benefits, if any, provided for by law in the case of the laying out of highways. The approval of any plan by the board of survey shall not impose any obligation upon the city of Cambridge, except as provided in this section.

Section 6. The right of petition and recovery provided for in the preceding section shall apply to all claims for damages arising prior to the passage of this act under the provisions of chapter four hundred and five of the acts of the year nineteen hundred; *provided*, that the proceedings are begun in such cases within one year after the passage of this act.

Section 7. The powers of the city council of said city and of the two branches thereof shall not be abridged by this act, except as expressly provided herein.

Section 8. Sections two, three, four and five of chapter four hundred and five of the acts of the year nineteen hundred are hereby repealed.

Section 9. This act shall take effect upon its passage. [*Approved June 17, 1903.*

The Sections in the Act of 1903, repealed by Section 8 of this Act, are as follows: —

Section 2. Any person or corporation contemplating laying out or locating and constructing any street or way in said city after the passage of this act shall before beginning such construction submit to said board of survey suitable plans, to be prepared in accordance with such rules and regulations as said board may prescribe. Upon the receipt of such plans, together with a petition for their approval, said board shall give a public hearing thereon, after advertising said hearing once a week for two successive weeks in a newspaper published in said city, the last advertisement to be at least two days before the hearing; and after such hearing said board may alter such plans and determine where such street or way shall be located, and the widths and grades thereof, and shall so designate on said plans. Said plans shall then be approved, signed by said board, marked as made under the provisions of this act, and filed in the office of the city engineer of said city, who shall attest thereon the date of filing.

Section 3. The board of survey shall from time to time cause to be made under its direction plans of such territory or sections of land in said city as said board may deem necessary, showing thereon the location of such streets or ways, whether already laid out or not, as said board shall be of opinion the present or future interests of the public will require in such territory, showing clearly the directions, widths and grades of each street or way, and may employ such assistants and incur such expenses as it may deem necessary therefor, not exceeding the amount of money appropriated by the city for the purpose. Before making any such plan the board shall give a public hearing as to the locations, directions, widths and grades of streets or ways in the territory to be shown on the plan, after advertising such hearing once a week for two successive weeks in a newspaper published in said city, the last advertisement to be at least two days before such hearing, and shall, after making any such plan, give a like notice of hearing, and a hearing thereon, and keep the plan open to public inspection for one month after the first advertisement of such hearing. After such hearing and after the alterations deemed necessary by said board have been made in such plan the plan shall be approved, signed, marked, filed and attested as provided in case of plans mentioned in section two of this act.

Section 4. The powers of the city council of said city and of either branch thereof in regard to highways shall not be abridged by this act in

any manner, except as provided in this section. After the passage of this act no street or way in the city of Cambridge shown on any plan filed as aforesaid shall be laid out, located anew, altered, widened or changed in grade, and no such street or way, whether already or hereafter laid out, shall be constructed by any public authority, except in accordance with the provisions of this act. If any person or corporation shall hereafter open for public travel any private way, the location, direction, widths and grades of which have not previously been approved in writing by said board of survey in the manner provided in this act, then neither the city nor any other public authority shall place any public sewer, drain, water pipe or lamp in, or do any public work of any kind on, any private way opened to public travel contrary to the provisions of this act: *provided, however*, that this provision shall not prevent the laying of a trunk sewer, water or gas main, if it be required by engineering necessities.

Section 5. If any building shall hereafter be placed or erected in said city upon land within the boundaries of any street or way shown on any of the plans filed as aforesaid, or on land adjacent to any such street or street or way the plan and profile of which has not been approved by said board of survey, no damages caused to any building so placed or erected by the construction of such street or way, as shown on said plans, or caused to any building so placed or erected, or to the land upon which said building is placed or erected, by the subsequent change of grade of any street or way, the plan of which has not been approved by said board of survey, shall be recovered by or paid to the owner of the whole or any part of the estate of which the land upon which said building so placed or erected formed a part at the date of the first advertisement of hearing as aforesaid.

The latter sections are herein given, that it may be observed by comparison with the provisions of the Act of 1903, as to how far the statuary powers originally given to the Board are modified or abridged by the new legislation.

At the beginning of the year the following matters were before the Board, having come over from the files of the year 1902, viz:—

1. Petition for the extension of Acacia Street, through Ash Street Place and private lands to Hilliard Street, according to a plan by L. M. Hastings, City Engineer, dated May 29, 1902.

2. Petition by B. D. Hyde and others for the acceptance and laying out of a portion of Greenhalge Street and Robinson Street, on lands bordering on the Esplanade.

3. Petition for the widening and laying out of Brown Street.

4. Proposed change in the approach from First Street to Main Street near the new Cambridge bridge.

5. Order of the City Council as to the advisability of laying out Railroad Street.

6. Petition for the laying out of Elmer Street.

All the matters before enumerated were duly considered, the several plans of Acacia Street extension and Brown Street were approved.

Inasmuch as there is to be a new plan of approach from First Street to Main Street, it was deemed inexpedient to approve the plan before the Board. The petitions for the acceptance of Railroad Street and Elmer Street were dismissed for the reason that plans had not been filed and they were not properly before this Board.

The Board has considered and approved the plans of streets and sewers, during the year as follows:—

Streets.

Name.	From	To	Date.
Acacia, extension	Ash street	Hilliard street	Nov. 9
Yorktown, laying out	Massachusetts avenue	Seven Pines street	May 14
Ash, relocation	Brattle street	Mt. Auburn street	Oct. 19
Athens, extension	Western terminus	Grant street	Oct. 19
Madison, laying out	Concord avenue	Garden street	Oct. 19
Pioneer, laying out	Broadway	Main street	Nov. 9
Rutland, laying out	Shepard street	Langdon street	Nov. 9
Stearns, laying out	Sherman street	Passageway	Nov. 9
Van Norden, laying out	Middlesex street	Yerxa road	Nov. 9
Wilbur, widening	Harvey street	Southerly 410 feet	Nov. 9
Brown, widening and laying out	Brattle street	Foster street	Nov. 9

Sewers.

Name.	From	To	Date.
Front street	Massachusetts avenue	Windsor street	May 14
Wadsworth street	Main street	Southerly 63.8 feet	May 14

The only petition referred to the Board by the City Council, of which no disposition has been made, is that of B. D. Hyde and others for the acceptance of Greenhalge and Robinson Streets, each extending from the Esplanade across Amherst Street. Action upon them is deferred until the petitioners shall furnish suitable plans.

It will be seen by the foregoing recapitulation of the doings of the Board during the year, that it has concurred and passed upon every subject which has been committed to it, except that of the last mentioned petition. It is gratifying to know that all the recommendations of the Board as heretofore made have received the unqualified approval of the City Council.

WILLIAM E. DOYLE,
JAMES A. WOOD,
JOHN T. SCULLY,
} *Board of Survey.*

REPORT OF THE TRUSTEES OF THE SANDERS TEMPERANCE FUND

The Trustees of this Fund submit their annual report for the year 1903, it being the thirty-eighth since the foundation of the Fund.

The work long ago laid out to be done by the Missionary, under the terms of the will of Charles Sanders, has, it is believed, been efficiently performed by the present incumbent, Mr. James Hicks. He has been constant in his attendance at our local court, helping and counseling many victims of the drink habit, and he has visited many families oppressed by its influence, seeking ever to lift the burden from their hearts. As an apostle of temperance, he has been present at many meetings, working with unceasing zeal for the good cause.

We would not omit herefrom a reference to the oft-told story of the Sanders bequest. The sum of $10,000 was bequeathed to this City in the year 1864 by a former citizen and graduate of Harvard College, Charles Sanders, a native of Gloucester, Mass., to which latter city he gave a like sum for a similar purpose.

It has been the endeavor of the present Trustees to fulfil as far as possible the wishes of the donor, and forward the good work in which he was so much interested. The annual report of the Missionary, appended hereto, fully sets forth the work that he has done during the year. We are satisfied that his labors in this direction have been productive of much good and that they have brought happiness to many families.

JOHN H. H. McNAMEE,
TIMOTHY W. GOOD,
EDWARD E. CLARK,
Trustees of Sanders Temperance Fund.

Cambridge, Mass., December, 1903.

To the Trustees of the Sanders Temperance Fund: —

Gentlemen: — In accordance with your requirements and past custom, I hereby present my report for the year ending December 31, 1903.

Throughout the year I have devoted my full time to the work committed to me, using such means as I thought best calculated to further

the cause of temperance in our City and aid the unfortunate victim of strong drink to a better and nobler life, and thus carry out the wishes of the philanthropic founder of the Fund, whose great desire was the preservation of the young from the vice of drunkenness, the salvation of the old drunkard from his habit, and to abolish, so far as possible, the use of intoxicating drinks.

Though the work at times has been discouraging, yet I am happy to report hundreds of homes in our City that have been benefited through feeble instrumentality such as I have been enabled to use. A summary of the channels through which my work has been carried on may give a clear knowledge of how I have spent my time during the year.

DISTRICT COURT.

I have followed up the old custom, of many years, in attending the sessions of the District Court. It is in the Court I find the unfortunate and the sorrowful of heart, both men and women, who, because of their unfortunate drink habit, have become homeless and friendless. I plead with them to give up their cups and start out on a sober life. There are many, both young and old, who take to a friendly, kindly word and express a desire for reform. In such cases, I need hardly say, I take a keen interest to make their cases known to the court, plead for them and ask for a continuance to enable me to help them in their laudable object.

Our presiding Justice and his associates have at all times been most courteous and willing to listen to my appeals on behalf of the unfortunate, and through their kindly action I have been enabled to assist many poor fellows who were down very low through strong drink, up to a sober, industrious life. I ought to say that, among the many reformed men in our City, none are more earnest in their work than the men who have been given the opportunity to reform by our kind-hearted judges.

PUBLIC TEMPERANCE MEETINGS.

I have assisted in conducting 225 public temperance meetings during the year. These meetings are carried on and officered by reformed men, and the good resulting from such gatherings cannot be estimated. About one thousand persons have taken the total abstinence pledge during the year. The men whose cases are given me by the Court, I always have them report to me at these meetings, unless there is some good reason assigned why they should not, then I have them report to me at my office evenings. If it were possible for me to enter into a report of the individual cases of miserable homes made happy through the good influences

of our temperance work, it would seem almost incredible; nevertheless, we have hundreds of such homes in the course of a year, which means earnest, active and painstaking effort on the part of all our temperance forces.

I have worked with another class who come under the head of those who come to these temperance meetings, men, some of whom have neglected their families for years. We call them non-support cases, who have listened to kindly advice, and to-day have happy homes, grateful wives and loving children; old things have passed away, and truly, all things become new.

VISITS MADE.

I have made over one thousand visits to the homes of our people, and in every case been most cordially and gratefully received. The greater number of my calls have been in the interest of the wife and children, where I have called in with the hope that I might be the means of turning the steps of the wayworn husband and father, in the direction of earning a livlihood for his suffering family, and becoming a sober, industrious citizen. I am pleased to report my calls, in this regard, have been signally blessed. I have many happy homes to show as the result of good advice, and whatever other aid I was enabled to give by way of encouragement.

I have found our laboring classes, where strong drink is left out, in very comfortable circumstances. I know of no cases of poverty or distress, unless where the drink habit prevails. If we could get sobriety, full and plenty would be our people's heritage.

I have met some very sad experiences, arising from the drunken habits of parents. I may cite one case, where I am responsible for the sobriety of parents to the court. Husband took the pledge, went to work, and is doing his best to support five children, gets good pay as a mechanic. Wife and mother continues her fearful habit. A few evenings previous to this writing, husband comes to my house after his day's work is over, with his oldest little girl, asking me to come home with him and get him and his children into the house. Wife in bed, with a young baby, stupidly intoxicated. When we got to the house, he entered by a side window, opened for me the front door from the inside. I found mother and baby almost frozen with the cold. There was no fire, and no food prepared for husband and children. We set to work, got fire and food prepared for the half-dead baby and mother. This happened on one of the coldest nights of the season. Had I not gone with the husband, the infant might have died of cold and hunger.

This case I am still looking after, and though the prospect seems dark for reformation, still I am not without hope. This case is still con-

tinued in the District Court. The Society for the Prevention of Cruelty to Children are most helpful in this and similar cases, and through our combined efforts many helpless children are sheltered and cared for and their parents compelled to lead sober, industrious lives.

CAST-OFF CLOTHING.

For several years past I have collected cast-off clothing from many of our charitably disposed citizens. In this I have been helped by our local press. This charity has enabled me to clothe many of our poor, deserving, naked ones, both men, women and children, who continually seek help from me during the winter months. I am carrying this good work on this winter and I trust have made many hearts glad.

HOUSE OF CORRECTION.

I have attended the Sunday morning services in the institution, as in former years, and done what I could to assist in making the services interesting. I have distributed literature among the prisoners, many of whom I trust, have gone out into the world benefited by the experience learned in the prison. I receive many letters during the year from discharged prisoners, stating that they were living strictly sober lives, and had got good employment, and hoped never to take a wrong step again.

NO-LICENSE.

My heart, with that of all well minded citizens, was made glad when the result of our returns became known at our late election, for our higher than ever vote against the liquor saloon's return to our City. The blessings that have come to us during all the past years of No-license are so plain to be seen, that I need hardly say a word regarding them.

The church, the school, the home, the increased revenue coming into our treasury, the savings bank, all attest the importance of vigilance against the destroyer of all that is good. Our temperance workers, above all this, rejoice inasmuch as the pitfalls are cleared away from the weak and helpless one, through strong drink, and also our reformed men get a fair chance to live lives of sobriety there being no temptation to draw them back into their once hard bondage.

God has wonderfully blessed us, as a City, in every respect, especially in guarding our homes from the license saloon.

IN CONCLUSION.

I would, with heartfelt gratitude, thank my Heavenly Father for the many blessings bestowed upon my feeble efforts during the year, and all who have participated with me in the work of reformation. I thank the several temperance societies for the excellent work they have put in, and our good citizens for the many kind and encouraging words they have at all times given me in my work.

May God bless us as a City in the future, as in the past, will ever be my prayer.

JAMES HICKS,

Missionary Sanders Temperance Fund.

REPORT OF INSPECTOR OF MILK

DEC. 1, 1902, TO APRIL 22, 1903.

OFFICE OF INSPECTOR OF MILK AND VINEGAR,
CAMBRIDGE, MASS.

To His Honor, the Mayor, and the City Council of the City of Cambridge:—

GENTLEMEN: — I have the honor to present the report of the Department of Milk Inspection for the period beginning December 1, 1902, and ending April 22, 1903.

In the period, 909 samples of milk have been analyzed, and of these 779 samples were taken by the Collector from dealers in milk. Of the 779 seized samples, 427, or 55 per cent., were below the standard.

The following table gives in detail the results of the work: —

TABLE I.

RESULTS OF ANALYTICAL WORK ON MILK.

Months December 1, 1902, to April 1903.	Number of samples.	Samples below standard, in fat or solids.	Per cent. below standard, in fat or solids.	Total Solids.			Fat.			Solids, not fat. Average.	Warnings sent.
				Highest.	Lowest.	Average.	Highest.	Lowest.	Average.		
December	217	93	42.8	19.32	11.60	13.18	11.2	2.6	3.99	9.19	5
January	329	164	50.0	16.36	10.46	12.97	8.0	2.2	3.87	9.10	32
February	142	100	70.4	16.22	10.96	12.82	7.3	1.6	3.83	8.99	25
March	81	60	74.1	14.60	10.82	12.72	5.7	1.9	3.75	8.97	15
April	10	10	..	12.96	12.22	12.55	3.8	3.2	3.54	9.01	..
Total	779	427	55.0	..	..	12.96	..	..	3.86	9.10	77

Milk has shown a decided decrease in quality since the first of January, reaching its lowest in March when 74.1 per cent. of the samples were below the standard. Such a deterioration should not, however, be

attributed to any adulteration, but rather to a poorer quality of milk, which has been brought about by the high prices of feed and the changes due to the foot and mouth disease. The averages for the worst month (March) show for the samples which are below the standard a total solids of 12.45, a fat of 3.52 and a solids not fat of 8.93. These are not the figures of an adulterated milk.

BUTTER.

After a cessation of several years the sale of oleomargarine has been begun again in the City. Eight licenses have been granted for its sale after compliance with the law had been made. While there has been a great outcry against oleomargarine, it is a perfectly healthful article of food and no objection can be raised to its sale provided it is sold under its true name.

The sale of process or renovated butter has also increased and now almost all stores carry it in stock. No case of violation of the law has been found. In the course of this inspection 53 samples of butter have been analyzed.

The pan and Waterhouse tests have proved fairly satisfactory in differentiating between process and pure butter but there have been several cases where the tests were indecisive. One sample contained enough curd to make the mass pulpy. It was probably prepared by the addition of rennet to the churn.

VINEGAR.

The samples of vinegar taken have been much more satisfactory than in previous years, due no doubt to the abundant apple crop. One dealer was found selling "Mass. Standard Vinegar" as cider vinegar. Complaint was made against him resulting in a conviction.

Following are the figures of the analyses: —

VINEGAR. RESULTS OF ANALYTICAL WORK.

No.	Acidity.	Total Solids.	Ash.	Alkalinity of Ash.	Polari-scope Reading.	Plumbic Acetate Reaction.
1	4.94	2 44	.369	43.7	-1.5	Precipitate.
2	4.64	2.88	.463	51.1	-3.5	"
3	4.68	2.62	.363	34.6	-0.3	Small Precipitate.
4	4.68	.46	.038	2.1	-0.0	No Precipitate.
5	4.94	2.14	.438	49.0	-2.8	Precipitate.
6	4.76	2.26	.352	40.7	-3.2	"
7	4.88	2.36	.380	35.0	-1.6	"
8	4.88	2.52	.277	32.2	-2.5	"
9	4.84	2.22	.351	39.6	-1.7	"
10	4.64	2.20	.345	38.5	-2.0	"
11	4.78	2.84	.375	41.5	-1.7	"
12	4.68	2.08	.447	46.9	-2.5	"
13	4.58	2.78	.364	38.1	....	Small Precipitate.
14	4.98	2.92	.465	50.1	+0.4	Precipitate.
15	5.24	2.40	.471	46.6	+1.1	"
16	4.98	2.44	.441	51.7	+1.0	"
17	4.74	2.26	.277	29.0	-2.0	"
18	4.82	2.10	.312	39.6	-2.0	"
19	4.80	2.36	.321	32.7	-2.2	"
20	5.14	2.44	.461	51.1	-2.8	"
21	4.78	2.39	.315	34.5	-2.5	"
22	4.68	2.78	.357	38.2	....	Small Precipitate.
23	4.76	2.26	.298	31.0	-2.9	Precipitate.
24	5.30	2.42	.441	48.5	-0.1	"

I have the sad task of recording the death of the Deputy Milk Inspector, John F. Wheeler, on March 16, 1903. Mr. Wheeler served the City well and faithfully for fourteen years. He performed his duties with such tact and judgment that he was liked and respected by all. He was ever alert to detect any fraud, and few dealers tried to impose upon him more than once. As one of them said to me: "Mr. Wheeler was always liked by everybody, but he would not stand any funny business."

Following are the statistics of the Department covering the period named: —

Milkmen licensed	6
Stores licensed	52
Milk samples collected	909
Below standard	417
Per cent. below standard (seized)	55.0
Warnings on milk	77
Vinegar samples	24
Below standard	1
Warnings on vinegar	1
Complaints	1
Convictions	1
Fines	$1

EXPENDITURES.

Appropriation		$1,680 00
Salary of Inspector	$355 00	
Salary of J. F. Wheeler	145 32	
Printing	9 91	
Apparatus	66 69	
Chemicals	4 12	
Stationery	1 70	
Express	1 90	
Samples and incidentals	4 45	
	$597 09	
Balance of appropriation	1,082 91	
		$1,680 00

Respectfully submitted,

PHILIP P. SHARPLES,
Inspector of Milk.

REPORT OF INSPECTOR OF MILK

OFFICE OF THE INSPECTOR OF MILK AND VINEGAR,
CAMBRIDGE, December 28, 1903.

To His Honor, the Mayor, and City Council: —

GENTLEMEN: — I have the honor to present to you the report of the Department of Inspector of Milk and Vinegar for the year ending November 30, 1903.

Philip P. Sharples, who held the office of Inspector of Milk and Vinegar since November 3, 1900, continued the work of the Department until April 23 of the present year.

I, William C. Lane, the present incumbent, was appointed by the Mayor and confirmed by the Board of Aldermen as Inspector on said 23d day of April of the present year. I have carried on the work of the Department according to the methods employed by my predecessor, Mr. Sharples, for the past two years. Since the beginning of my term of office 2,754 samples of milk have been analyzed in the Department, and in addition to these 1,000 samples were analyzed by Mr. Sharples from December 1 up to my confirmation, making in all 3,754 samples of milk analyzed in the Department for the year. I here present Table 1 to show the comparison in the quality of the milk of this year with that of other years: —

	1900.	1901.	1902.	1903.
Samples collected	3,367	3,697	3,711	3,754
Below standard	313	481	1,086	724
Per cent. below standard	9.3	13	32.3	19.3
Warnings sent	172	233	283	267

By way of a full explanation of the milk analyzed during the year I present a second table. This table shows a variation in monthly averages both in solids and fats. This is accounted for by reason of the

variations in the requirements of the law for the different seasons. Therefore the following table shows the result of the analysis by months: —

MONTHS DECEMBER 1, 1902, TO DECEMBER 1, 1903.

Months.	No. of samples.	Samples below standard, in fat and solids.	Per cent. below.	Warnings.
December	235	118	50.21	31
January	213	102	47.88	27
February	208	100	48.07	33
March	200	122	61.00	30
April	201	55	27.36	22
May	386	30	77.70	19
June	415	26	62.65	12
July	388	20	5.15	9
August	370	18	4.86	11
September	374	24	6.41	18
October	396	163	41.16	26
November	368	171	46.46	29
	3,754	949	25.54	267

The coloring matter so much complained of in previous years has been much lessened in the samples of milk analyzed during my term, and skimmed and preserved samples have been almost entirely absent.

It gives me pleasure to be able to present my report free from court cases; now I do not desire to imply that I have not found persons guilty of the sale of poor milk. In such cases warnings were sent either to the supplier or supplied, and invariably subsequent analysis of samples proved entirely up to standard. From experience I discovered that warnings written by me produced much better results than those furnished by the City in printed form. Nine times out of ten from the former I have received a reply by way of apology while on the other hand little or no attention would be paid to the printed form. I can safely say that my plan has been the means of avoiding at least some court cases which otherwise would have taken place.

VINEGAR.

The object of this Department is to analyze vinegar as well as milk, but since vinegar is much the less important of the two articles of food only a small portion of the work is devoted to its analysis.

About the usual number of samples have been collected and analyzed, and nothing new has arisen in this branch of the work; most of the sam-

ples sold as cider vinegar have conformed to the requirements of the law, and those samples sold simply as vinegar have mostly contained the required amount of acetic acid. Seventy samples have been analyzed in the Department this year according to the methods described in previous reports.

BUTTER.

The twelve samples of butter examined this year have met all the requirements of the law. These samples were collected from stores, and so I am obliged to conclude that the amount of oleomargarine sold in the City is very small and certainly is not kept to any extent on sale. The method employed in the analysis of these samples was that used in the past two years, according to the Waterhouse tests as given in Farmer's Bulletin, No. 131, of the United States Department of Agriculture, and also by means of the oleofractometer.

DISEASES IN MILK.

In regard to the diseases in milk but little need be said; first, because no disease spread to the extent of an epidemic during my term, and secondly, because the milk supply and its relation to diseases in general was fully explained in my predecessor's last report. As the collector of milk samples reports that a number of small stores selling milk have not the proper and healthy iced closets for milk, which I deem necessary for keeping milk to a high standard; although these stores do partly meet the requirements by keeping only one or two cans of milk on hand at one time, yet I would suggest that all licensed dealers should provide sweet and air-tight vessels to hold milk so that the fumes of decaying vegetables, etc., cannot affect the purity of the milk. I recommend therefore the passage of a law to this end as a benefit to the health of consumers. Again, the method used by the Collector in obtaining samples has been an incentive to milkmen and dealers to keep the milk pure and up to the standard. His routes have been so arranged that the milkmen have been in a quandary as to his whereabouts. The expense of the collecting of samples has increased from the fact that on the very outskirts of the City are stores which are inconvenient to reach often and require fares to and from.

EXPENDITURES.

Appropriation		$1,680 00
Salaries	$1,334 65	
Printing	54 41	
Apparatus	103 40	
Chemicals	22 92	
Car tickets	50 00	
Stationery	17 35	
Expressing	6 23	
Samples and incidentals	10 89	
	$1,599 85	
Balance unexpended	80 15	
		$1,680 00

Number of stores licensed	114
Number of wagon licenses granted	117
Amount collected from sale of licenses	$124 50

Respectfully submitted,

WILLIAM C. LANE, M. D.,
Inspector of Milk and Vinegar.

REPORT OF THE SEALER OF WEIGHTS AND MEASURES

OFFICE OF THE SEALER OF WEIGHTS AND MEASURES,
BRATTLE SQUARE, CAMBRIDGE, December 1, 1903.

To the Honorable, the City Council: —

In compliance with the City Ordinance, I respectfully submit a report for the Department of Weights and Measures, for the year ending November 30, 1903: —

Appropriation		$2,500 00

EXPENDITURES.

Salaries of Sealers: —			
A. S. K. Clark		$432 78	
George H. Dinan		567 22	
John C. Connors		750 00	
		$1,750 00	
Assistants: —			
Daniel C. Sweeney	$69 60		
E. A. Counihan, Jr.	30 02		
		99 62	
Care of Horse: —			
Street Department for board	$216 00		
Street Department for shoeing	14 50		
		230 50	
Repairs, etc., on Wagons and Harnesses: —			
L. C. Chase & Co.	$7 58		
James Curry	12 20		
Jos. H. Ryan	40		
John J. Hawkes	75		
T. H. Kneeland	79 95		
Owen Doherty	19 50		
		120 18	
Repairs on City Scales: —			
Brock & Eaton	$1 51		
Street Department	85		
C. Mahoney	3 07		
		5 43	
Amounts carried forward		$2,205 73	$2,500 00

Amounts brought forward		$2,205 73	$2,500 00
Marking Acid: —			
Malden Specialty Co.		28 00	
Equipment: —			
A. Lubbe	$1 50		
R. Woodman Mfg. Co.	13 60		
Boston Stencil & Stamp Co.	28 05		
Caustic-Claflin Co.	17 95		
A. J. Wilkinson & Co.	1 50		
Herman Strater & Sons	2 10		
Fairbanks Scale Co.	31 54		
Moore & Hadley	1 20		
Chadwick-Boston Lead Co.	1 69		
Street Department	3 00		
Brock & Eaton	5 38		
		107 51	
Office Incidentals: —			
Amee Bros	$7 35		
A. H. Edgerly	3 00		
F. P. Merrill Co.	1 00		
A. S. K. Clark	2 00		
Pittsburg Plate Glass Co.	4 50		
J. A. Cummings Printing Co.	3 28		
Chas. H. Thurston	33 93		
Electrical Department	20		
P. H. Moriarty	15		
Library Bureau	45		
Boston Elevated R'y Co.	20 00		
Brock & Eaton	21 92		
Sawin's Express	1 70		
American Express Co.	45		
Caustic-Claflin Co.	8 50		
City Messenger Department	10 84		
N. E. Tel. & Tel. Co.	16 60		
		135 87	
Total expenditures			2,477 11
Amount unexpended			$22 89

REVENUE.

Fees for Sealing	$717 05	
Fees for adjusting	95 46	
Weighing fees at City Scales	109 61	
		$922 12
Unpaid fees for 1903		10 86
Total of fees collected		$911 26
Total amount expended	$2,477 11	
Total of fees collected	911 26	
Net expense of department		$1,565 85

INSPECTIONS AT OFFICE FOR YEAR ENDING NOVEMBER 30, 1903.

S—Sealed. C—Condemned. A—Adjusted.

	Scales.			Weights.			Dry Measures.			Liquid Measures.			Yard Measures.		Baskets		Milk Measures.	
	S	A	C	S	A	C	S	A	C	S	A	C	S	C	S	C	S	C
1902.																		
Dec.....	6	3	....	20	13	1	7	....	....	3	...	....	....	....	14	1	6,614	210
1903.																		
Jan.....	8	2	2	32	22		16	....	....	35	....	....	....	....	4	....	13,419	811
Feb.....	17	2	2	15	9	....	24	....	1	156	41	1	....	....	4	....	2,724	255
Mar.....	51	4	2	51	32	....	114	....	....	56	2	3	1	....	6	....	19,070	741
Apr.....	18	2	6	16	10	....	131	....	3	133	49	....	....	....	3	....	9,554	611
May.....	18	2	....	11	11	....	92	....	1	209	....	....	....	....	2	....	8,470	449
June.....	17	5	....	44	34	....	57	....	....	90	...	1	....	....	....	....	8,287	147
July.....	6	2	....	7	...	....	17	....	....	24	....	....	....	....	1	....	5,202	110
Aug.....	....	....	....	....	....	....	26	....	....	....	....	....	....	....	....	....	6,152	196
Sept.....	6	1	1	....	....	....	21	....	2	26	....	....	....	....	....	....	615	25
Oct.....	7	1	....	19	7	....	19	....	....	6	....	....	....	....	....	....	8,203	240
Nov.....	4	1	...	3	3	....	12	....	....	27	....	. ..	....	...	....	....	3,098	9
	158	25	23	218	141	1	536	....	7	765	92	5	1	....	34	1	91,408	3,804

Total number of tests made at office, 96,961.

TESTS MADE OUTSIDE OF OFFICE FOR YEAR ENDING NOVEMBER 30, 1903.

S—Sealed. A—Adjusted. C—Condemned.

	Scales.			Weights.			Dry Measures.			Liquid Measures.			Yard Measures.		Baskets	
	S	A	C	S	A	C	S	A	C	S	A	C	S	C	S	C
1902.																
Dec	26	2	1	34	7	....	12	....	....	24	....	1	.....	....	....	....
1903.																
Jan.....	5	.....	....	19	2	....	15	....	....	.....	....	....	.....	....	....	....
Feb.....	2	1	...	.....	.....	....	.....	....	....	.....	....	....	....	....	....	....
Mar.....	.....	.....	...	.....	.....	....	.....	....	....	. ....	....	....	.....	....	....	....
Apr.....	163	33	12	519	286	1	238	1	8	259	6	8	3	....	....	....
May	188	21	7	597	203	....	236	2	2	297	1	2	30	....	....	...
June.....	249	44	....	805	247	....	216	1	9	215	....	....	12	....	....	....
July.....	249	69	1	955	343	....	219	1	1	279	....	1	6	....	....	....
Aug.....	140	43	3	606	247	....	33	....	....	41	....	....	1	....	....	....
Sept.....	307	88	....	1,023	313	....	181	3	8	197	....	3	57	1	4	....
Oct.....	361	93	8	1,140	418	....	349	....	9	389	....	9	39	....	....	....
Nov.....	280	51	3	886	297	....	306	3	7	375	1	13	29	1	...	....
	1,970	445	35	6,584	2,363	1	1,805	11	44	2,076	8	37	177	2	4	....

Total number of tests made outside of office, 12,735.

RECORD FOR YEAR ENDING NOVEMBER 30, 1903.

	Sealed.	Adjusted.	Condemned.	Total Inspected.	Per Cent. Sealed.	Per Cent. Adjusted.	Per Cent. Condemned.	Number Correct.	Number Incorrect.	Per Cent. Correct.	Per Cent. Incorrect.
Scales.....	2,128	470	58	2,186	97.3	21.5	2.7	1,658	528	75.8	24.2
Weights	6,802	2,504	2	6,804	99.9	36.8	.05	4,298	2,506	63.2	36.8
Dry Measures....	2,341	11	51	2,392	97.9	.5	2.1	2,330	62	97.4	2.6
Liquid Measures.	94,249	100	3,846	98,095	96.1	.1	3.9	94,149	3,946	96.	4.
Yard Measures...	178	.....	2	180	98.9	.....	1.1	178	2	98.9	1.1
Baskets.....	38	.....	1	39	97.4	.....	2.6	38	1	97.4	2.6
	105,736	3,085	3,960	109,696	96.4	2.8	3.6	102,651	7,045	93.6	6.4

Total number of tests made, 109,696.

WEIGHTS AND MEASURES DEPARTMENT.

INVENTORY OF PROPERTY.

Standards Furnished by the Commonwealth.

1 Balance, 5 grains to 100 lbs.
1 Set (5) Avoirdupois weights, 50 lb., 25 lb., 20 lb., 5 lb.
1 Set (11) Avoirdupois weights, 4 lbs. to 1-16 oz.
1 Kilogramme in case.
1 Brass yard measure.
1 Set (5) iron dry measures, ½ bushel to 1 quart.
1 Set (6) iron liquid measures, 1 gallon to 1 gill.
1 Steel meter in case.

1 Roll top desk.
1 Black walnut desk, used by Superintendent of Janitors.
1 Black walnut desk.
5 Chairs.
1 Table.
1 Clothes press.
1 Scale cabinet.
1 Wooden cabinet.
2 Benches.
1 Sink.
5 Mats.
1 Set Revised Laws.
1 Set card records, oak case.
1 Set card index, oak case.
1 Hektograph.
1 Letter press.
1 Blotter bath.
Miscellaneous books . $200 00

1 Bay horse	100 00
1 Express wagon	100 00
1 Light wagon	75 00
1 Pung	23 00
2 Harnesses	70 00
1 Plush robe	1 00
1 Stable blanket	2 00
1 Rain blanket	2 00
1 Woolen blanket	5 00
1 Halter	75
Amount carried forward	$578 75

Amount brought forward		$578 75
1	Hitch weight	50
1	Platform scale, 1-2 lb. to 2,500 lbs.	75 00
1	Folding platform scale, 1-4 lb. to 600 lbs.	30 00
1	Balance, 1-10 milligramme to 500 grammes	35 00
1	Balance, 1-50 grain to 1-2 lb.	15 00
1	Sealers' balance, 1 grain to 8 lbs.	50 00
2	Sealers' trip scales (not in use)	5 00
1	Spring scale, 1 lb. to 125 lbs.	1 00
2	Sets (19) Avoirdupois weights, 4 lbs to 1-8 oz.	10 00
1	Set (9) Troy weights, 16 oz. to 1-8 oz.	3 00
1	Set (13) Metric weights, 1 kilo to 1 gramme	5 00
5	Boxes miscellaneous weights (not standardized)	10 00
1	Set (3) iron weights, 25 lb., 10 lb., 5 lb.	5 00
40	50-lb. weights	100 00
3	Glass graduates	1 00
1	Set (5) copper dry measures, 1-2 bushel to 1 quart	45 00
1	Set (3) brass dry measures, 1 quart to 1-2 pint	5 00
2	Sets (14) copper liquid measures, 1 gallon to 1 gill	30 00
1	Iron truck	5 00
1	Steel tape	10 00
1	Set brands	3 00
1	Plumber's furnace	5 00
	Miscellaneous tools	50 00
1	Wagon scale (Lechmere Square)	400 00
1	Wagon scale (Union Square)	350 00
		$1,827 25

The present Sealer, upon assuming office on May 7, 1903, found that to visit every person using scales, weights and measures before the end of the fiscal year, November 30th, would be a difficult task, but with the valuable assistance and hearty co-operation of the Deputy Sealer, Mr. John C. Connors, the entire City has been covered.

During the past year 109,696 articles have been tested, as against 98,262 articles last year, an increase of nearly twelve per cent.

The sealing fees, amounting to $717.05, are the largest ever collected in the City.

The sealing fees for last year amounted to $673.76, showing an increase this year of $43.29.

Section 34, Chapter 62, Revised Laws, provides that the Sealer shall have a reasonable compensation for all necessary repairs, alterations and adjustments made by him.

These charges have amounted this year to $95.46, as compared with $188.95 in 1902, a decrease of $93.49.

The merchants, as a rule, have complained of what they considered excessive charges for adjusting in previous years.

The scales, weights and measures being found in good condition this year, the Sealer feels that he has done equal justice to all concerned by reducing these charges.

Owing to the reduction referred to, together with the fact that the adjustments show a decrease of over forty per cent. from 1902, the total revenue of the Department is a little less than last year.

This Department has caused several persons to be summoned into court for the violation of laws relating to weights and measures, and in each case has secured a conviction.

Witness fees, which were a source of revenue in previous years, have been discontinued under the provisions of Section 42, Chapter 204, Revised Laws, which provides that salaried officers of the City shall receive no fee for attendance at court.

The attention of the Department has been called frequently to the fact that a certain class of hawkers and pedlers are using peach baskets in the sale of merchandise, instead of sealed measures as prescribed by law.

These baskets, in most cases, hold six quarts and it is a common practice of this class to use them to represent a peck.

The practice of thus cheating the buyer of two quarts in eight is principally confined to the poorer sections of the City, where the loss is felt to a greater extent.

The reputable venders are also complaining because they cannot keep pace with the cut rates which the dishonest dealers are able to make on account of their short measures.

The City Solicitor has informed this Departmant that the presence of these baskets on pedlers wagons is not legal evidence of their use as measures and therefore, unless the Sealer has positive proof of their being used as such, it is impossible to secure a conviction.

The Sealer would recommend that one of the conditions upon which licenses be issued to pedlers is, that all baskets used shall be subject to the approval of this Department.

The scales used by junk collectors were generally found in good condition.

The persons engaged in this business have given the Department less trouble than in previous years and have shown a disposition to comply with the requirements of their licenses.

In the early part of the year, considerable attention was paid to coal dealers, owing to the scarcity of that article, and more especially because of the fact that a large number of persons were engaged in hawking it from door to door in one-hundred-pound bags.

In the neighborhood of five hundred of these bags were tested, and one dealer was found guilty of giving short weight and was fined $20.

Twenty-nine tests were made of coal on wagons in transit to the consumer and in most instances were found to weigh in excess of the amount certified.

The number of milk jars presented for sealing at this office is steadily increasing and, as all this work is performed without charge, it has a tendency to decrease the revenue.

If this branch of the work keeps increasing, in a short time it will necessitate the services of an extra man in this Department.

The revenue from the two City scales has shown a decided increase this year, but there is room for improvement.

The weighers on these scales claim that, while they are compelled to charge according to the schedule fixed by the City Ordinance, many firms are weighing for the public at the rate of ten cents per load.

The City is obliged by law to erect and maintain these scales for the purpose of public weighing and should have no competition.

I appreciate the kind assistance I have received from a number of the City officials, aiding me very much in my work.

I wish especially to mention the members of the Police Department for their assistance in preventing violations of the laws regarding weights and measures.

Respectfully submitted,

GEORGE H. DINAN,
Sealer of Weights and Measures.

REPORT OF THE SUPERINTENDENT OF STREETS

To the Honorable, the City Council: —

Gentlemen: — In accordance with the provisions of Section 4, Chapter 25, of the Revised Ordinances, the annual report of the Superintendent of Streets is herewith respectfully submitted.

Mr. Charles A. Brown, formerly Superintendent of Streets, was not re-appointed in 1902 but held office until the choice of his successor in 1903. The undersigned was appointed Superintendent of Streets by His Honor, Mayor McNamee, January 5, 1903, and confirmed by the Board of Aldermen, January 13, assuming the duties of office on January 14. He was re-appointed Superintendent of Streets April 6 and confirmed April 21. He assumed the duties of office under difficulties of more or less magnitude, among others being the fact that the clerk of the department, Mr. George M. Clukas, left the service in December, 1902, and Mr. Henry P. Fielding, the present clerk, did not begin service until the following February. Thus for nearly a month the new Superintendent was handicapped by the need of an experienced assistant. This too was at a time when the annual estimates of the department were being made up and when the services of an experienced man would have been especially desirable. Upon coming into the office in February, Mr. Fielding readily grasped the details of the department and has proved himself to be an efficient and earnest servant of the City.

RECOMMENDATIONS.

The especial attention of the City Council is called to recommendations relative to the subjects outlined below, which are discussed more in detail elsewhere in this report: —

Repairs to bridges and building of new bridge over Wellington Brook.

The ploughing of snow from sidewalks in the vicinity of factories by the City.

The separation of ashes and paper.

The sanding of icy sidewalks.

The discontinuance of unused driveways.

The extension of curbing at catch basins on certain streets.

The purchase of six additional watering carts.

Changing the designation of the appropriation "Crossings and Repairs" to "Street Crossings" and confining its purposes to building new crossings.

A more general use of vitrified brick crossings.

The building of vitrified brick crossings on Harvard Street.

The bricking of sidewalks on all main avenues.

The laying of granite block pavement on sundry streets.

The widening of Concord Avenue.

The paving of River Street, from Fairmont Avenue to the bridge, with vitrified brick.

The paving of Massachusetts Avenue from the railroad crossing to Lafayette Square with vitrified brick.

Acceptance and widening of Bolton Street.

Streets to be brought to a certain grade by property owners before acceptance by the City.

Change in ordinance relative to board walks.

Proposed additional facilities for handling freight.

Proposed storage yard near Fitchburg railroad.

Field stone and purchase of a ledge.

Subway under Fitchburg railroad tracks.

The employment of tally-men.

BRIDGES.

Appropriation	$3,000 00	
Transferred from collection of ashes	200 00	
		$3,200 00

EXPENDED.

Pay-roll	$2,215 13	
Renewals and repairs: —		
First Street Bridge	15 84	
Third Street Bridge	798 31	
Sixth Street Bridge	9 97	
Walden Street Bridge	160 75	
Total expenditures		$3,200 00

FIRST STREET BRIDGE.

During the coming year this bridge should be re-planked and the capping on the fenders replaced. The stringers south of the draw appear to be fairly sound, except that the header and some of the tenons are decayed and should be repaired at once. One stringer north of the draw

is badly rotted while the header and tenons are sound. The header is, however, cracked through at the fourth timber from the west side and should be replaced.

The appearance of the bridge would be much improved by a coat of paint.

THIRD STREET BRIDGE.

This bridge needs painting and some of the fence boards should be replaced. Only ordinary repairs will be needed, however, as the bridge has been thoroughly overhauled during the past season.

SIXTH STREET BRIDGE.

This bridge needs painting and some of the fence boards should be replaced. The floor of the bridge is apparently sound, but the stringers of the draw are beginning to rot, some being sound and some decayed. One draw timber also is badly rotted as are some of the tenons in the header. The header has been split and bolted. It is not in good condition.

WALDEN STREET BRIDGE.

This bridge has been repaired during the year by the Boston Bridge Works at an expense of $160.75.

Gases from passing locomotives continue to affect the ironwork of this structure, eating away webs and flanges. The wooden boxes placed in position about a year ago have proved to be very desirable as protective coverings. They show scarcely a trace of abrasion, even where most exposed to the exhaust from locomotives. One of the boxes has been knocked off by some projection on a passing train and a second was nearly destroyed by the same agency. These boxes should be replaced at once.

The bottom members of the fence have been badly eaten by locomotive gases and are in need of scraping and painting or renewal. The entire bridge needs painting.

HURON AVENUE BRIDGE.

The ironwork of this bridge is in good condition but several of the sheets of lead which were placed as protection for the metal are out of position. The fence needs scraping and repainting and the planking of both roadway and sidewalks should be renewed.

HURON AVENUE PIPEWAY BRIDGE.

The ironwork on this bridge is in good repair. The paint has given excellent protection, but is now beginning to pit and should be renewed before extensive scraping is required. The fences are badly in need of paint as is also the guard fence along the pipeway. The planking on both walks and on the roadway should be renewed in the spring.

ARLINGTON–CAMBRIDGE BRIDGE.

This is a masonry bridge on Massachusetts Avenue crossing Alewife Brook and at the present time is in good repair. The only work needed is the scraping and painting of the iron fence which forms the guard rail across the ends of the bridge. The retaining wall on the north-east side of Massachusetts Avenue should be re-pointed at one place and on the south-west side a small section needs immediate repair, as some of the stones have fallen from their places, leaving the coping improperly supported.

WELLINGTON BROOK BRIDGE.

The timbering of the Wellington bridge is in good condition and the flooring sound though somewhat worn. The abutments are in a very dilapidated state. When any work becomes necessary on this bridge it should be replaced by a new bridge of another class.

DRAWBRIDGE OPENINGS.

The following table shows the number of times draws were opened on the canal bridges at First, Third and Sixth Streets : —

BRIDGE.	Number of Openings for Up-Stream Traffic.	Number of Openings for Down-Stream Traffic.	Total Number of Openings.
First street	516	524	1,040
Third street	166	196	362
Sixth street	80	82	162
Grand total of openings			1,564

NECESSITY OF INCREASED APPROPRIATION FOR BRIDGES.

It is recommended that a much larger appropriation be made for the bridge division of the work than usual, as the bridges should be immediately brought up to a proper standard of repair. On the First, Third and Sixth Street bridges the department has increased the facilities for public safety by the introduction of chains, which are extended from one side of the street to the other. This precaution prevents teams and foot passengers attempting to pass while the bridge is being raised or lowered.

CLEANING STREETS.

Appropriation	$35,000 00	
Transferred to Contingent Fund	4 37	
		$34,995 63
EXPENDED.		
Pay-roll	$29,673 62	
Teaming	2,624 38	
Hay	903 86	
Grain	986 28	
Straw	146 96	
Gravel	8 90	
Hardware, tools, etc.	238 35	
Harnesses, repairs, etc.	31 37	
Refilling machine sweeper brooms	195 00	
Machine sweeper repairs	146 04	
Renewals and repairs	33 77	
Sundries	7 10	
Total expenditures		$34,995 63

The following table shows the amount expended this year for the removal of snow and ice from public streets as compared with the amounts expended on the same account in 1901 and 1902: —

	1901.	1902.	1903.
District 1	$1,639 05	$3,624 62	$3,148 12
District 2	1,172 71	3,178 06	2,777 63
	$2,811 76	$6,802 68	$5,925 75

INCREASED NUMBER OF SECTION MEN.

During the past year the department increased the number of section men who have assigned to them a certain district to be kept clean. This has proved to be a practical and economical step, taking into consideration the results that have been obtained. The districts of all section men have been extended and the improvement over a large area in each case is noticeable.

SUNDAY MORNING CLEANING.

This year the department introduced a system of Sunday morning cleaning with results that have met with the heartiest approval of many citizens. The main avenues in the business districts of the City become littered with paper and rubbish over Saturday and unless cleaned after midnight Saturday would present a most unsightly appearance on Sunday morning. This situation was remedied by sending out a force of men every Saturday at midnight. The result has been that Sundays our streets have been cleaner than ever before. The comments expressed by citizens on the system of Sunday morning cleaning has been most gratifying.

PLOUGHING SNOW FROM SIDEWALKS.

In a number of cities throughout the State snow is ploughed from the sidewalks by the street departments. Cambridge may well study into the advisability of getting into line in this respect. The City ordinance relative to the removal of snow and ice from sidewalks, especially in manufacturing districts, is openly and constantly violated. Sidewalks border in many cases on vacant lands and snow is allowed to remain on them for days at a time, particularly to the discomfort of those employed in factories. It is recommended that the City shall take steps providing for the removal of snow from sidewalks, at least in the factory districts. It would seem wise to have framed an ordinance to the effect that immediately after a storm the Street Department shall by use of snow ploughs clear sidewalks leading to the various factories of the City.

STREET LITTER.

The department could be materially assisted in the keeping of the streets free from paper and other litter if the school children were specially instructed by their teachers as to the value of keeping streets clean.

The ordinance relative to the throwing of rubbish and litter on streets should be made stronger. The Board of Health should be asked to send a circular to householders and others regarding the throwing of litter and rubbish on the streets and the police officers should be instructed to better guard the City's interests in this respect.

SANDING OF ICY SIDEWALKS.

In some cities in the State icy sidewalks are sprinkled with sand by the street departments. No city in which this custom has been established has ever abandoned it. Provision should be made in the maintenance appropriation for this work.

COLLECTION OF ASHES.

Appropriation		$29,000 00	
Transferred to Bridges	$200 00		
Transferred to Contingent Fund	2 22		
		202 22	
			$28,797 78

EXPENDED.

Pay-roll	$24,853 46	
Teaming	238 75	
Hay	1,523 48	
Grain	1,740 92	
Straw	144 73	
Hardware, tools, etc.	77 64	
Harnesses, repairs, etc.	52 34	
Renewals and repairs	101 44	
Sundries	65 02	
Total expenditures		$28,797 78

DESIRABILITY OF CONVENIENT DUMPING PLACES.

In his annual report for the year 1901, the Superintendent of Streets made the following statement: —

"Convenient and accessible dumping places are growing more and more difficult to obtain and new methods must be followed in the disposition of the large amount of this waste now annually collected."

In 1901 the collection of ashes cost the City approximately $29,130. The number of dwellings on May 1 of that year was 13,846½. During the past year many of the long hauls for ash carts have been abandoned and more convenient dumping places secured. The resulting saving in time has enabled the department to collect the ashes from 14,883 dwellings, an increase of 986½ dwellings over 1901, at an decreased cost of $28,797.78, as shown in the foregoing financial statement. It should be noted that this year there has been a Saturday half-holiday extending over a period of six months.

SEPARATION OF ASHES AND PAPER.

In 1900 the City Council passed an ordinance providing that ashes must be separated from paper and placed in separate receptacles for collection. A rigid enforcement of this ordinance, which has been practically a dead letter, will be productive of good results. By a proper amendment it will be practicable to enforce this ordinance. If the paper is properly separated from the ashes the City will be enabled to receive a

revenue from its sale and the streets in the vicinity of dumps will be no longer littered with materials blown about by heavy winds.

A very objectionable feature has been the burning of paper and other materials on dumps, causing a smoke nuisauce and endangering property. This condition has frequently prevented the City from securing desirable dumping privileges.

MAINTENANCE — SALARIES.

Appropriation	$4,000 00	
Transferred from Street Watering	100 00	
		$4,100 00
EXPENDED.		
Salary of Superintendent	$2,000 00	
Salary of Chief Clerk	1,154 30	
Salaries of temporary clerks	945 70	
		$4,100 00

The growing needs of the office demand the services of three clerks constantly employed. This appropriation should be increased to $4,500 per annum.

MAINTENANCE — GENERAL.

Appropriation	$64,000 00	
Transferred from Contingent Fund	977 82	
		$64,977 82
EXPENDED.		
Pay-roll	$39,492 40	
Teaming	1,728 13	
Hay	1,861 54	
Grain	1,741 98	
Straw	286 43	
Hardware, tools, etc.	1,153 38	
Harnesses, repairs, etc.	809 16	
Steam-rollers, repairs and supplies	386 57	
Stone-crushers, repairs and supplies	1,054 82	
Cement	493 50	
Field stone, etc.	6,304 85	
Crushed stone	1,938 48	
Stone dust	344 61	
Gravel and freight	1,438 03	
Fuel	1,573 79	
Street signs	57 20	
Electric lighting	345 96	
Telephones, stationery and miscellaneous office supplies	830 69	
Renewals and repairs	900 85	
Concrete stone	12 42	
Vitrified bricks	989 94	
Sundries	1,233 09	
Total expenditures		$64,977 82

SHED FOR RAYMOND STREET CRUSHING PLANT.

The department has during the past year built a shed covering the stone crusher and its belting and buckets. Before this was done the mouth of the crusher was exposed to the weather, as well as the belt and buckets. The erection of this shed not only gives protection to the plant but enables the department to crush stone in wet weather.

REPAIRS ON SIDEWALKS, EDGESTONES AND GUTTERS.

During the past year repairs on sidewalks have been made to a larger extent than in any other year in the history of the department. Approximately three miles of old edgestone has been reset; four and one-quarter miles of brick paving relaid; and three and one-half miles of gutter relaid.

TABLE SHOWING DETAILED COST OF PATCHING AND GRADING.

	Grading on Streets.	Patching on Streets.	Patching on Sidewalks.
Aberdeen avenue		$18 00	
Acorn street		9 25	$3 10
Agassiz street		6 13	
Albany street	$31 50	13 38	
Amherst street		29 25	
Amory street		4 00	
Appleton street		19 25	
Arrow street		3 10	
Arsenal square		2 98	
Ash street			2 48
Avon Hill street		3 23	2 98
Baldwin street		24 50	4 95
Banks street		216 60	
Bellevue avenue		11 55	
Belmont street			11 05
Binney street		5 45	
Berkeley street			2 98
Bolton street	86 20	6 20	
Bond street		9 80	
Bowdoin street		2 98	
Boylston street		15 50	
Brattle street		133 98	5 50
Brewster street			2 35
Bridge street		2 35	
Broadway		87 60	
Burleigh street			2 85
Brookline street	544 76	34 45	
Buckingham street			5 95
Cambridge street	354 80	231 81	7 83
Carlisle street		2 35	
Cedar street		12 25	
Charles street		93 20	
Chatham street		3 35	
Cleveland street		4 10	
Clifton street		12 75	19 50
Cogswell avenue		10 45	
Columbia street		120 98	
Concord avenue		157 82	28 95
Cottage Park avenue	510 35		
Crescent street		2 25	2 35
Cushing street			3 00
Dana street		8 55	
Davenport street		5 70	2 85
Day street			2 98
Decatur street		4 51	
DeWolfe street		12 23	2 25
Donnell street		3 25	
Dover street			2 85
Dudley street	2,709 03	23 95	4 95
Dunster street		8 73	
East street		8 05	
Eighth street		11 90	
Ellery street		10 93	
Elm street		2 98	4 45
Elmwood avenue		2 98	
Erie street		61 37	
Essex street		3 98	
Everett street		7 45	

TABLE SHOWING DETAILED COST OF PATCHING AND GRADING.—*Continued.*

	Grading on Streets.	Patching on Streets.	Patching on Sidewalks.
Fairmont avenue		$2 35	
Fairmont street		5 70	
Fayerweather street	$825 10	108 65	$4 70
Felton street		2 48	2 98
Fenno street	76 30	4 70	2 88
Fifth street		35 60	
First street		23 98	
Foster street		21 75	
Fourth street		28 23	
Frank street		2 25	39 45
Franklin street		14 13	
Garden street		55 13	2 85
Gray street	165 85		
Green street	43 00	60 18	
Gorham street			8 93
Grigg street		5 70	
Hamilton street	73 75	3 77	
Hammond street			2 48
Hampshire street	11 25	229 68	
Hancock street		2 35	
Harvard street		244 88	
Harvey street		6 10	2 25
Hastings street		1 55	
Henry street		2 05	
Highland avenue		7 55	
Hilliard street			5 95
Holden street		2 75	
Hollis street		75	
Holworthy street			7 70
Holyoke street	157 25		8 25
Homer avenue		11 00	
Howard street		36 03	
Howland street	203 95		
Hubbard avenue			2 98
Hurlburt street		15 18	2 35
Huron avenue	319 60	27 33	85 73
Inman square		10 65	
Jay street			7 80
Jefferson street		3 10	
Kirkland street		59 55	11 90
Kirkland road		2 38	
Lake View avenue		5 20	5 50
Lansdowne street	49 50	18 20	
Larch road			13 90
Lawrence street		1 49	
Lexington avenue			2 85
Line street		5 35	
Linnaean street		9 15	
Locke street			2 98
Magazine street		5 33	
Magee street		5 31	2 98
Magnolia avenue		4 73	2 38
Magoun street			8 63
Main street		38 13	
Marcella street		4 35	
Market street	382 20	3 95	
Mason street		5 95	
Massachusetts avenue	587 90	761 26	33 10
Mt. Auburn street	64 70	169 18	

TABLE SHOWING DETAILED COST OF PATCHING AND GRADING.—*Continued.*

	Grading on Streets.	Patching on Streets.	Patching on Sidewalks.
Museum street	$133 80		
Norfolk street		$6 42	
Oliver street		2 98	
Otis street	318 89	3 98	
Palermo street		2 35	
Park avenue			$5 00
Parker street		13 78	8 93
Peabody street	93 70		
Pearl street		27 88	
Pemberton street			5 20
Pilgrim street	580 60	21 74	58 10
Pine street	74 50	7 43	
Pleasant place		2 35	
Pleasant street	4 15	5 70	
Plymouth street	215 98	10 83	
Porter street		6 20	
Porter road			2 85
Portland street		2 85	
Potter street		5 95	
Prince street		4 95	
Prison Point street	6 50	2 35	
Prospect street		28 63	
Putnam avenue		112 51	
Quincy street		6 50	4 35
Raymond street		7 83	22 38
Reed street		57 13	2 25
Reidesel avenue	228 83	2 35	
Rindge avenue		56 75	23 98
River street		34 83	
Russell street	149 73		
Sands street		2 85	
Saville street			2 85
School street		6 05	
Scott street			2 85
Second street		19 03	1 98
Seventh street	57 70	21 15	
Sherman street		25 63	11 58
Sidney street	1,261 25	7 93	
Sixth street	214 84	59 71	
Sparks street	398 40	10 55	4 83
Spring street		80 48	
Stearns street		31 40	
Sumner street			2 98
Third street		20 58	
Thorndike street		15 60	
Trowbridge street		15 13	
Tufts street		6 19	
Union street		6 28	
Upland road		2 48	
Vincent street		2 25	
Vassal lane		33 25	
Vine street		40 45	
Walden street		31 60	21 15
Warren street		21 30	
Washington street		12 25	
Waterhouse street		2 98	
Webster avenue		36 15	
Wendell street			9 53
White street		14 85	

TABLE SHOWING DETAILED COST OF PATCHING AND GRADING.—*Concluded.*

	Grading on Streets.	Patching on Streets.	Patching on Sidewalks.
West street			$10 40
Willard street		$4 83	
Willow street		9 40	
Windsor street		9 76	
Winter street		7 75	
Woodbridge street			6 70
Worcester street		2 98	
Wright street			5 60
York street		6 30	
Yorktown street		5 50	
	$10,935 86	$4,569 37	$611 14

CROSSINGS AND REPAIRS.

Appropriation		$10,000 00
EXPENDED.		
Pay-roll	$9,142 22	
Teaming	220 63	
Hay	136 50	
Hardware, tools, etc.	8 10	
Cement	55 30	
Granite flagging	419 08	
Concrete stone	18 17	
		$10,000 00

During the past year the following new crossings have been laid:—

Western Avenue, corner Franklin Street.
Cambridge Street, corner Prospect Street.
Western Avenue, corner Green Street.
Holyoke Street, south side Mt. Auburn Street.
Sparks Street Court, at Concord Avenue.
Huron Avenue, east side Fayerweather Street.
Huron Avenue, north side Fayerweather Street.
Mt. Auburn Street, at Holyoke Street.
Holyoke Place, at Holyoke Street.
Baldwin Street, at Kirkland Street.
Brattle Street, west side Palmer Street.
Brattle Street, north side Harvard Square.
Brattle Square, from Brewer's Block to Court House.
Western Avenue, corner Auburn Street.
Hancock Street, corner Green Street.
Two at Otis Street, corner Sixth Street.
Two at Thorndike Street, corner Sixth Street.
Two at Seventh Street, corner Thorndike Street.
Two at Seventh Street, corner Otis Street.
Cambridge Street, east side Trowbridge Street.

It has been customary to re-lay sidewalks, gutters and crossings and build new crossings out of this appropriation. It is believed that this appropriation should be solely for the purpose of building new crossings and that repair work of all kinds should be done out of the maintenance appropriation.

It is recommended that the appropriation be hereafter designated as "Street Crossings" instead of the present designation "Crossings and Repairs."

The appropriation for new crossings the coming year should not be less than $10,000.

VITRIFIED BRICK CROSSINGS.

The use of vitrified brick crossings is urged wherever it is practicable to lay them.

Several years ago the Street Department introduced a large number of tar concrete crossings, principally on Harvard Street. These crossings have proved to be a very poor investment, as they have gone to pieces, without exception, and are at present an eyesore as well as a menace to public safety. Probably as many automobiles pass daily over Harvard Street as over any other street in the City and the defects in the crossings on this street are particularly dangerous to automobile traffic. These crossings should be replaced at once with vitrified brick crossings.

It is earnestly recommended that a substantial appropriation be made for crossings and repairs of crossings the coming year as extensive work in this line throughout the City should be done immediately.

EDGESTONES AND SIDEWALKS.

Appropriation	$30,000 00	
Transferred to Contingent Fund	1 18	
		$29,998 82
EXPENDED.		
Pay-roll	$14,312 95	
Teaming	157 50	
Hay	491 59	
Grain	390 83	
Straw	72 66	
Hardware, tools, etc.	187 94	
Bricks	5,164 26	
Edgestone	5,526 90	
Gutter stone	1,818 07	
Gravel, freight and loading	649 56	
Cement	169 44	
Allowance on artificial stone sidewalk	837 78	
Renewals and repairs	29 37	
Sundries	189 97	
Total expenditures		$29,998 82

New curbs, brick sidewalks and granite block gutters have been laid during the year on the following streets: Allen, Antrim, Auburn, Berkshire, Brattle and Cambridge Streets, Concord and Cottage Park Avenues, Creighton, Elm, Fairmont, Fayerweather, Fifth, Frank, Green, Hampshire, Harvard, High and Howard Streets, Huron Avenue, Kinnaird, Line, Locke, Mt. Auburn, Ninth, Pearl, Pemberton, Plymouth, Pine, Portland and Prescott Streets, Rindge Avenue, River, Seventh, Sherman, Sidney, Sixth, Spring, Thorndike, Union, Vine, Walden and Warland Streets, Webster Avenue, Windsor, Woodbridge and Wright Streets.

BRICK SIDEWALKS ON MAIN AVENUES.

All sidewalks on main avenues of travel should be bricked. Throughout the City there are now far too many gravel sidewalks on such thoroughfares for public convenience. In wet weather, especially in the spring of the year, gravel sidewalks result in annoyance and inconvenince to house-holders as well as to pedestrians. The maintenance of gravel sidewalks in the spring of the year by the City is expensive. Avenues leading to and from factories employing large numbers of working people should be bricked without delay.

STREET WATERING.

Appropriation		$29,000 00	
Transferred to Maintenance — Salaries	$100 00		
Transferred to Contingent Fund	997 88		
		1,097 88	
			$27,902 12

EXPENDED.

Pay-roll	$6,274 42	
Sprinkling contracts	19,011 38	
Hay	476 63	
Grain	626 55	
Straw	44 07	
Hardware, tools, etc.	274 86	
Harnesses, repairs, etc.	45 57	
Watering cart repairs	908 74	
Fuel	7 00	
Standpipe repairs	105 95	
Teaming	37 50	
Sundries	89 45	
Total expenditures		$27,902 12

In compliance with an order passed by the Board of Aldermen March 19, 1903, the Superintendent of Streets on August 29, 1903, certified to the Board of Assessors the amount of Street Watering Assessments for the current year, as follows : —

Ward	1	$905 18
	2	605 78
	3	837 12
	4	1,312 88
	5	1,251 10
	6	1,733 52
	7	1,551 70
	8	1,845 40
	9	2,943 58
	10	2,284 56
	11	1,553 20
	Total	$16,824 02

THE NEED OF ADDITIONAL WATERING CARTS.

The work of no division of the Street Department is subject to greater criticism than that of street watering. In many instances complaints are without color of reason ; in many others they are justifiable. The routes covered by the watering cart contracts are too long to permit of a proper and satisfactory watering of streets. The main avenues are given particular attention while the side streets must of necessity be more or less neglected with the present number of carts. The residents on side streets deserve early consideration. The situation can be promptly and satisfactorily remedied by the purchase of at least six watering carts additional to those now owned by the City. This will enable the department to shorten the routes and give substantial and satisfactory service throughout the City.

The department is required to water all public ways. The comfort, however, of tax-payers living on private ways has been taken into consideration and private ways have been watered upon payment in advance of the cost of watering. There have been watered during the past year 1.1 miles of private ways. December 1, 1901, there were 93.848 miles of accepted streets in the City. December 1, 1903, there were 96.808 miles, an increase of nearly three miles. Taking into consideration this increase as well as the number of private ways that ought to be watered, the need of additional watering carts is evident.

INCREASE IN RATE PAID UNDER SPRINKLING CONTRACTS.

It is further recommended that watering cart contractors be paid $90 per month instead of $85 as at present. This will enable them to employ

more capable drivers, to use better horses and to give in the long run better service to the City. This recommendation is founded on the unsatisfactory results of the present rate of wages.

DECREASED SERVICE OWING TO LOW CONDITION OF FRESH POND.

Owing to the low condition of Fresh Pond the Water Board sent a communication to the Superintendent of Streets, late in the summer, restricting the use of water for street watering purposes to about one-half the usual amount. It was found necessary to lay off most of the watering cart contractors about the same time and employ City teams on about one-half the usual number of carts.

LARGE IDENTIFICATION NUMBERS ON WATERING CARTS.

The number of each watering cart has been placed in large numbers on the end of each tub so that in case of complaint a cart can be easily indentified by a citizen at a distance.

GRANITE BLOCK PAVING.

CAMBRIDGE STREET.

Appropriation		$5,000 00
EXPENDED.		
Pay-roll	$1,117 99	
Teaming	70 63	
Hay	100 00	
Grain	92 70	
Hardware, tools, etc.	5 00	
Harnesses, repairs, etc.	10 00	
Gravel, freight and loading	27 65	
Granite paving blocks	2,412 00	
Sundries	31 22	
Total expenditures		3,867 19
Balance unexpended		$1,132 81

Owing to delay in securing granite blocks the work on this street was not begun until late in the fall. Application was made by the Superintendent of Streets to the City Council asking permission to purchase blocks without advertising, from parties who could furnish them

promptly. This permission was denied and it was consequently impossible to get the blocks in time to complete the work this year. The blocks are now on hand at the Hampshire Street yard and the work can be resumed promptly in the spring.

THE NEED OF GRANITE BLOCK PAVING ON CERTAIN STREETS.

During the past year a careful study has been made of a number of streets in the City over which heavy traffic passes in connection with large manufacturing and commercial interests. On Charles Street are situated several of the largest trucking concerns in the City. On Third Street, extending back to Sixth Street, is located the George F. Blake Mfg. Co., and in this vicinity is also located the Boston Bridge Works and the Standard Oil Company. The teaming for all of these concerns is of a very heavy character and warrants the laying of granite block paving on streets named in the following list. Concerns like these, which contribute heavily to the industry of the City, should receive all possible encouragement and are justly entitled to pavements which will give them rapid and economical transit for their raw materials and manufactured products. In other sections of the City are large coal and lumber yards, pork-packing concerns and miscellaneous large industries with all of which teaming is very heavy.

It is recommended that the following streets be paved with granite blocks: —

Charles Street, from Sixth to First Street.
Third Street, from Canal to Charles Street.
Winter Street, from Third to Fifth Street.
Fifth Street, from Winter to Gore Street.
Fourth Street, from Winter to Bridge Street.
Sixth Street, from Gore to Cambridge Street.
Lambert Street, from Gore to Cambridge Street.
Warren Street, from Somerville line to Cambridge Street.
Albany Street, from Main Street to Massachusetts Avenue.
Sidney Street, from Franklin Street to Massachusetts Avenue.
Main Street, from Third Street to Lafayette Square.
Concord Avenue, between Arsenal Square and Huron Avenue.

Concord Avenue, between Arsenal Square and Huron Avenue is in a very undesirable condition. The location of the street railway tracks on this narrow street renders the proper maintenance of a first-class macadam road impracticable. It is strongly urged that it be paved with either vitrified bricks or granite blocks.

RESISTANCE TO TRACTION.

In Byrne's "Highway Construction" under the head of Resistance to Traction on Different Road Surfaces resistance in terms of load on bad macadam is shown to be as high as $\frac{1}{4}$; on good granite block $\frac{1}{17}$; on ordinary granite block $\frac{1}{25}$.

The financial interests of large concerns in the City which have a heavy amount of teaming are in a great degree affected by the resistance to traction on highways. Traction is affected in one way by the uniformity and strength of the roadbed. When the surface of the road is eneven a horse must not only draw the weight of the load but the load itself must be lifted over the high points and hauled out of the hollows and ruts. Another condition affecting traction is the strength of the roadbed. Although the road may be free from hollows or cavities if the material of the road is of such a nature that it will yield to the pressure of the wheels it adds another obstacle to the movement of the load hauled over it. On such a road the horse is not only drawing the load but during the entire time is lifting it.

It is earnestly recommended that the streets named above be placed in such condition that they will be a benefit to the business interests of the City. Cambridge can do much to encourage the growth of large industries within her borders by the building of substantial highways.

VITRIFIED BLOCK PAVING.

RIVER STREET.

Appropriation	$10,000 00	
Transferred from Revenue Account	450 11	
		$10,450 11
EXPENDED.		
Pay-roll	$5,003 45	
Teaming	620 64	
Vitrified paving blocks	3,418 80	
Cement, American	105 00	
Cement, Portland	71 40	
Concrete stone	448 29	
Gravel, freight, etc.	421 30	
Hardware, tools, etc.	149 97	
Pitch	55 50	
Steam roller	115 00	
Sundries	40 76	
Total expenditures		$10,450 11

The vitrified brick pavement on River Street the past season has been extended from Kinnaird Street to Fairmont Street. It is recommended that the remainder of the street from Fairmont Street to the bridge be completed during the coming year with vitrified brick.

VITRIFIED BRICK PAVEMENT, MASSACHUSETTS AVENUE.

It is recommended that the pavement on Massachusetts Avenue from the railroad crossing to Lafayette Square be extended during the coming season, as this main avenue is at present in a deplorable condition between the points named.

COMMERCIAL AVENUE.

Appropriation	$1,000 00	
Transferred to Clifton Street	619 09	
		$383 91
EXPENDED.		
Pay-roll	$216 25	
Filling	156 75	
Lumber	7 91	
		$383 91

Owing to the abolishing of grade crossing at Prison Point it is necesaary to raise Commercial Avenue to a certain grade. The work this year was carried out between Cambridge Street and the canal. The greater portion of the filling was secured by the department without cost to the City. When the present Superintendent of Streets came into office the department was paying twenty-five cents per load for the material. This arrangement was stopped at once and the material secured from the same contractor for nothing. By this arrangement the City Government was enabled to transfer $616.09 from the appropriation for Commercial Avenue to the appropriation for Clifton Street where the money was spent to great advantage this year.

WARLAND STREET.

Appropriation		$1,800 00
EXPENDED.		
Pay-roll	$846 02	
Teaming	6 25	
Hay	63 40	
Grain	90 90	
Straw	10 00	
Hardware, tools, etc.	5 00	
Harnesses, repairs, etc.	8 00	
Edgestone	226 05	
Gravel and freight	35 50	
Crushed stone	127 39	
Gutter stone	138 63	
Sundries	39 85	
Total expenditures		1,596 99
Balance unexpended		$203 01

This street has been extended from Pleasant Street to River Street. It was necessary to have several buildings moved and delay on the part of the owners in the removal of these buildings prevented the work from being entirely completed this year. A few days work in the early spring will place the street in a state of completion.

CONSTRUCTION OF STREETS.

CLIFTON STREET.

Appropriation	$700 00	
Transferred from Commercial Avenue	616 09	
		$1,316 09

EXPENDED.

Pay-roll	$820 41	
Teaming	125 63	
Grain	20 00	
Straw	10 00	
Hardware, tools, etc.	6 25	
Gravel, freight, etc.	140 00	
Crushed stone	152 56	
Sundries	16 60	
Total expenditures		1,291 45
Balance unexpended		$24 64

This street was brought to grade and macadamized for its entire length. A few days steam-roller work in the spring will place the street in an excellent state of completion.

Last year the department secured filling for sundry streets in Ward 11 from a Somerville citizen at twenty-five cents a load. This year the department procured material of the same man from the same bank at twenty cents a load. Later on the department secured filling for this street from the bank of the City ledge, controlled by the Overseers of the Poor, at no cost to the City. About six hundred double loads were taken from this bank.

PERMITS ISSUED.

The issuing of permits for board walks, sale of goods on sidewalks, opening and obstructing streets and sidewalks, building and repair of granolithic sidewalks and other purposes has grown to be an important feature in the work of the office.

The following tables show the number issued this year: —

OPENING PERMITS.

To Whom Issued.	Number Issued.
Boston Elevated R. R.	31
Cambridge Gas Light Co.	310
Cambridge Electric Light Co.	42
Metropolitan Water and Sewerage Board	9
New England Telephone & Telegraph Co.	37
Sewer Department	21
Water Department	15
Drain layers	204
Miscellaneous	94
Total issued	763

OBSTRUCTION PERMITS.

Tar kettle contractors	68
Miscellaneous	239
Total issued	307

ARTIFICIAL STONE SIDEWALKS.

P. J. Lyons	6
Simpson Brothers Corp.	5
Warren Brothers Co.	2
Simplex Electrical Co.	1
George H. Lowe	7
Carr & Andrews Corp.	2
Total issued	23

SELLING GOODS ON SIDEWALKS.

Number of permits issued	68

BOARD WALKS.

Number of permits issued	96

PRIVATE STEAM ROLLER PASSING THROUGH PUBLIC STREETS.

Number of permits issued	2

The following table shows streets laid out and accepted during the past fiscal year :—

STREETS LAID OUT AND ACCEPTED, DECEMBER 1, 1902, TO DECEMBER 1, 1903.

Location of Street.						Plan.	
Name.	From	To	Length in Feet.	Width in Feet.	Date of Acceptance.	Made by	Date.
Amherst street	Wadsworth street	Pelham street	891.0	60	Dec. 13, 1902	E. F. Bowker	Oct. 2, 1902
Amherst street	Pelham street	Massachusetts avenue	1,664.0	60	Dec. 13, 1902	City Engineer	Nov. 3, 1902
Carleton street	Deacon street	Amherst street	487.6	50	Dec. 13, 1902	E. F. Bowker	Oct. 2, 1902
Clifton street	Harvey street	Dudley street	645.0	40	Dec. 27, 1902	City Engineer	Nov. 22, 1900
Dudley street	Clifton street	Montgomery street	800.4	40	Dec. 27, 1902	City Engineer	Sept. 8, 1902
Hayward street	Main street	Amherst street	505.7	40	Dec. 13, 1902	E. F. Bowker	Oct. 2, 1902
Madison street	Concord avenue	Garden street	693.0	30	Oct. 28, 1902	City Engineer	April 16, 1903
Royal avenue	Huron avenue	Concord avenue	543.5	40	Dec. 27, 1902	W. A. Mason & Son	Aug. 8, 1902
Wadsworth street	Esplanade	near Main street	647.0	40	Dec. 27, 1902	E. F. Bowker	Oct. 2, 1902
Yorktown street	Massachusetts avenue	Seven Pines avenue	560.2	40	May 20, 1903	W. A. Mason & Son	Jan. 28, 1903

Total length of streets accepted December 1, 1902, to December 1, 1903, 7437.4 feet or 1.409 miles.
Previously accepted, 95.399 miles. Total to date, 96.808 miles.

INVENTORY OF REAL AND PERSONAL PROPERTY.

REAL ESTATE.

Location.	Buildings.	Erection of Buildings.	Purchase of Land.	Feet or Acres of Land.	Valuation of Land.	Valuation of Buildings.
Raymond St.....	City Yard and Stable, stable, sheds, scales, etc.	1897	1896	272,670	$27,000	$27,000
Hampshire St....	City Stable, sheds and scales, including old police station.....	1885	....	72,661	30,000	16,000
E. S. Norfolk St..	Yard and pound.....	....	....	39,600	12,000	....
Acton, Mass.....	Land, gravel bank.....	....	1896	41,546	7,000	....
					$76,000	$43,000

Total valuation of real estate..... $119,000 00

PERSONAL PROPERTY.

69 horses	$6,000 00	
49 watering carts	12,000 00	
54 single and double carts	4,700 00	
80 sets harnesses	2,100 00	
Miscellaneous buggies, sleighs, pungs, plows, wagons, etc.	2,200 00	
4 bicycles	125 00	
4 steam rollers	5,000 00	
1 two-horse section roller	125 00	
Miscellaneous tools, road machines, pick-up sweepers, scrapers, brooms, etc.	8,000 00	
Stone crushing plant, Raymond Street	5,500 00	
Stone crushing plant, Hampshire Street	6,000 00	
8 Shadbolt ash carts.	2,500 00	
2 Watson carts	350 00	
Miscellaneous lumber, iron, cements, oils, etc.	1,500 00	
632.3 feet straight edgestone	309 83	
350.1 feet circle edgestone	245 07	
25,000 granite paving blocks	1,675 00	
270 square yards gutter stone	202 50	
8,500 sidewalk bricks	99 45	
50 tons crushed stone	60 00	
1,400 tons field stone	1,050 00	
2½ tons coal	10 62	
13,000 vitrified bricks	325 00	
		58,977 47
		$177,977 47

CONCORD AVENUE WIDENING.

For many years the widening of Concord Avenue between Arsenal Square and Huron Avenue has been urged. The time has now come when there should be no further delay in the carrying out of this project. The avenue is a main artery leading through Cambridge to Belmont and towns beyond. The proposed widening will develop a territory where the City under former administrations sunk $97,000 in the laying out and construction of streets, sewers and water works. A plan has been made and approved by the Board of Survey recommending widening to a width of sixty feet from Huron Avenue to the Belmont line. It is strongly recommended that this work be taken up the coming year as public necessity and convenience demand it.

GRANOLITHIC SIDEWALKS.

Early the present year the Superintendent of Streets called the attention of the City Engineer to the loose manner in which granolithic sidewalks had been built in Cambridge for a number of years past, requesting that he detail some assistant from his office to make inspection of these sidewalks during construction. So far as could be learned there had been no system of inspection of these sidewalks in the past, although after a certain period the cost of maintenance falls entirely upon the City. The number of granolithic sidewalks laid annually is increasing, so that close attention to the details of construction is a matter of grave importance to the City. During the past year careful inspections have been made of all granolithic sidewalks built and the contractors held firmly to the specifications. It is apparent from a careful examination that granolithic work done prior to this year has not been laid in accordance with contract conditions.

RECOMMENDATIONS, SUNDRY STREETS.

Besides streets already named for repairs in this report the attention of the City Council is especially called to the condition of Royal Avenue, Vassal Lane, Magoun and Wellesley Streets and Commercial Avenue. Royal Avenue is in a residential section and at present is in an unsightly condition. Wellesley Street has been accepted by the City during the past year. It leads off Massachusetts Avenue on the southerly side of the new armory and should be paved the coming season with some substantial material. As Massachusetts Avenue in this vicinity is laid with vitrified brick, it is suggested that this pavement be also laid on Wellesley Street. Magoun Street needs considerable filling and should be macada-

mized. Careful consideration should be given to Commercial Avenue. The work on Prison Point bridge is progressing rapidly, and if the City were to complete Commercial Avenue convenient and economical approach would be afforded manufacturing interests of the City to shipping facilities by rail and water. Vassal Lane is one of the oldest accepted streets in the City and should be filled to grade and macadamized the coming year.

SUBWAY UNDER FITCHBURG RAILROAD TRACKS.

The building of a subway under the tracks of the Fitchburg Railroad from the City Yard to Rindge Field is recommended, as the railroad tracks divide two sections in this district, where residents have common business and social interests. The City has purchased and laid out Rindge Field for park purposes, yet this playground is shut out to some because of its inacessibility, although close at hand. Residents employed on one side and residing on the other side of the railroad are obliged to climb fences in order to cross the tracks, unless they wish to take a roundabout course. Children going to school would be especially benefited by the proposed improvement. At present they jeopardize their lives climbing the fences and crossing the railroad tracks. The safety and convenience of the public demand the building of this subway.

ACCEPTANCE OF STREETS.

The City should adopt a policy of accepting streets only after they have been brought to a suitable grade by the abutting property owners. Streets have been accepted in the past which have been one to three feet below established City grade. The mere fact that a street has been brought up to grade, however, should not be considered sufficient for its acceptance. The abutters on a private way desirous of shifting the maintenance of such a way upon the City should bring it up to grade, making the fill of material suitable for street purposes.

BOLTON STREET.

This is a private way extending from Sherman street to the Raymond Street Yard of the Street Department. This street is very largely used by City teams and is otherwise an important thoroughfare. Its acceptance and widening is recommended. At present, if a steam roller is needed in the western and northern sections of the City it is compelled to travel 4,200 feet to reach a point only 650 feet distant, as it impossible

to take a steam roller through this private way. At times this road is so impassable that all our teams must take a roundabout course, causing the loss of much valuable time.

DRIVEWAYS.

Investivation shows that all through the City are a great many unused driveways. These are a constant source of annoyance to the public traveling on the sidewalks and largely increase liability to accident. The City should discontinue the authorization of driveways for the mere purpose of allowing coal teams to enter private property with coal supplies once or twice a year. While it is true a driveway saves the property owner the cost of having coal baskets carried into the premises, the perpetual inconvenience to the traveling public ought to be considered of greater moment.

CATCH BASINS.

Throughout the City are many catch basins located near corners where no curbing has been set except at the catch basins themselves. Teams driven around these corners not only wear away the gravel sidewalks but strike against the end of the catch-basin curb. The protection of these basins can be better secured by placing circles and returns wherever they do not already exist. Public safety as well demands that steps be taken to lay curbing as outlined above, and suffcient money should be provided the coming year for the purpose.

BOARD WALKS.

The ordinance relative to board walks should be amended. At present the Superintendent of Streets is authorized to issue licenses permitting private individuals to lay board walks on public sidewalks in front of their premises. The walks cannot be removed except by vote of the Board of Aldermen. The Superintendent of Streets should be given power to revoke these licenses whenever in his opinion the conditions of the license have been violated or the interests of the City demand their removal. The Superintendent of Streets has equivalent authority where other permits are issued from his office.

FIELDSTONE.

As long as the department must rely upon fieldstone for use on the streets, so long will the City be obliged to pay for stone of irregular quality. Mayor Champlin in his inaugural address to the City Council,

January 1, 1900, said: "The inferior and irregular quality of the fieldstone furnished at the crushers makes desirable the ownership by the City of a first-class ledge." It may be of interest to note that the following amounts have been annually expended for fieldstone:—

1896	$13,265 37
1897	11,260 16
1898	11,511 17
1899	10,942 39
1900	10,269 18
1901	8,294 86
1902	8,443 43
1903	6,148 14

The amount of fieldstone bought this year was less than any year since 1891.

PURCHASE OF A STONE LEDGE.

The best interests of the City demand the purchase of a stone ledge. At the beginning of the year there was included in the annual estimates $12,000 for the purchase of a ledge, but the City Government decided against the proposition. The streets of Newton and Brookline to which attention has often been called are of a high standard because both municipalities own a ledge of suitable stone. The macadamized streets of these places having a uniform degree of hardness wear uniformly even, without cradle-holes caused by the presence of soft stone placed alongside harder material. Soft stones being unable to stand the wear as well as the harder material crumble away and cradle-holes are the result. This condition of affairs can only be remedied by the purchase of a suitable ledge. The investment will unquestionably prove profitable and it is strongly urged that the City Council give the matter early and serious attention.

STORAGE YARD NEAR FITCHBURG RAILROAD.

It is recommended that the City secure a parcel of land alongside the Fitchburg Railroad location near Hunting Street, to be used for the storage of street building materials unloaded from the cars. At the present time, when materials arrive by freight, men and teams have to be taken away from street work, at inconvenient times, in order to get cars unloaded before demurrage charges arise. Under present arrangements, large quantities of materials have to be teamed from Boynton's yard to the City yard on Hampshire Street, stored there, and later teamed to the

work on the streets. If an additional yard is purchased near the railroad location, the materials can be unloaded from the cars and stored until needed for use. The economy of this proposition requires no further demonstration.

PROPOSED FACILITIES FOR HANDLING FREIGHT AT RAYMOND STREET.

It is recommended that conditions for handling freight at the Raymond Street yard be improved. Arrangements may be made with A. H. Hews & Co. to have extended to the Raymond Street yard the coal run now used by them in connection with their pottery works. Sand, gravel and crushed stone could then be delivered in cars that could be unloaded by scuttling. This arrangement would save ten cents, at least, on every ton of crushed stone and a similar saving would result on other materials delivered to the yard in cars. The amount thus saved could be expended in other directions to good advantage.

THE EMPLOYMENT OF TALLYMEN.

Before the present administration came into power, the district foremen were obliged to keep the time of the men employed in the department. No foreman could properly do this and attend as he should to the supervision and direction of street work. The foremen were obliged to work several hours overtime each day, making out time sheets. The employment of tallymen took away from the foremen the burden of doing this work and has been productive of greater accuracy in the returning of time to the office at City Hall.

Stock books are kept by the tallymen in which is made a record of all materials received by the department. This insures accuracy in the checking of bills.

All supplies now received by the department, either on the streets or at the City yards, are weighed, measured or counted by the tallymen, as the case may require, and an accurate record kept in every instance subject to the constant and vigilant supervision of the foremen and the Superintendent of Streets. The employment of tallymen has proved to be a sound business measure and their continuance in the department is strongly urged.

OFFICE IMPROVEMENTS.

PERMIT BONDS.

Early in the year it was deemed wise to abandon the policy of accepting personal sureties on bonds filed by parties to whom permits were

issued for opening or obstructing streets. In the cases of some of the bonds on file it was found that the sureties had died, become bankrupt, or had conveyed away their property. It was decided to accept only the bonds of surety companies approved by the Insurance Commissioner of Massachusetts. Besides giving the City better protection, this change has saved a large amount of clerical labor.

BOOKS AND CARD INDEXES.

During the year the methods of keeping the department accounts have been modernized. In place of the double entry system found in use, there has been substituted a columnar system of accounts admirably suited to the needs of the department. This system was introduced prior to the making of recommendations to the department, by Mr. Harvey N. Chase, the expert accountant employed by the City Council.

IMPROVED METHOD OF KEEPING TIME.

A new method of keeping the time of employees of the department has been introduced during the year. Formerly the foremen of each district took the time of the men employed under him, keeping a separate time book for each appropriation. As the men in the department are constantly shifted from work under one appropriation to work under another, the system in use frequently involved the writing of one employee's name several times, each time in a separate book. After the time was taken the foreman had to make out daily time sheets, one sheet for each appropriation. This re-copying resulted in frequent errors and was decided to be an expensive and unnecessary proceeding. When these were returned to the office at City Hall, the time of one clerk was entirely taken up re-copying the names and time from the sheets into a pay-roll book. The department has introduced a new time book, in which the names of the employees are written once weekly by a tallyman and a columnar arrangement provided by which a man's time may be kept in the same book under several appropriations. The pay-roll forms sent to the Treasurer have printed on them the names of all men eligible for employment in the department. When a man has worked his time is placed opposite his name on this printed roll.

A copy of this pay-roll is kept in a letter-press copying book. Under the old system the total number of names of employees written during the year approximated one hundred and twenty-five thousand, one man's name being written sometimes as many as twenty times in a week. Under the new system there will be written annually not more than twenty thousand names. The time of clerks saved by this new arrange-

ment can be utilized to very good advantage in other directions where the department has been embarrassed for clerical help in the past.

Early in the year there were introduced at each of the City yards stock books similar to those which have just been recommended by the Committee on Finance. The value of these books is discussed elsewhere in this report. There have also been introduced card index systems for brick and curb sidewalks, granolithic sidewalks and watering-cart contractors. A classified card index of laborers has also been introduced during the past year, which has proved to be of exceptional advantage to the office. A card index of streets watered is in preparation, and in addition other card indexes are contemplated.

The department is required by ordinance to keep a record of defects in highways. A new system of recording such defects has been introduced during the year, which is believed to be a decided improvement over the old method in two important features; namely, accuracy and the saving of clerical labor.

A card index of the horses owned by the department has been made during the year. Each horse has been numbered, its number appearing on the card index at the office. On the cards also appear the age, color, height, weight and marks of each horse, and a record of its efficiency. When a horse is sick or incapacitated by injury, a report is made in writing by the foreman in charge to the office and a record made on the proper card.

One of the most effective measures taken during the year was the taking of steps to determine the amount of work done by hired teams. The majority of teamsters hired by the City render honest and efficient work, giving the City a just return for the money paid them. A system of keeping an account of the work done by these men raised the standard of service very much.

Standard specifications for street building materials, for the use of the department in advertising for proposals, have been prepared during the past year. The use of these specifications not only lessens the cost of advertising but gives bidders and contractors a better understanding of what they are to furnish the City

I wish to extend my deepest thanks to His Honor, Mayor McNamee, for his thoughtful consideration and advice. I wish also to thank the employees of the department for their faithful and conscientious service and the Committee on Highways for courtesies shown the department during the past year.

Respectfully submitted,

JOHN T. SHEA,

Superintendent of Streets.

ANNUAL REPORT OF OVERSEERS OF POOR

1902-3

Central Square Building,
Cambridge, December 28, 1903.

To the Honorable, the City Council of the City of Cambridge: —

Gentlemen: — The Overseers of the Poor of the City of Cambridge respectfully present their twenty-sixth annual report.

During the year there have been several changes, the first of which was the resignation of Capt. Martin L. Eldridge, Superintendent of the City Home.

On January 12th, a letter was received by the Board from Capt. Martin L. Eldridge, who had been Superintendent of the Almshouse since 1885, tendering his resignation. This was accepted by the Board, and at the meeting on January 31st a letter of reply was sent by the members to Captain Eldridge, as follows: —

"With deep regret the Overseers of the Poor of the City of Cambridge, Mass., have received your letter of the 12th inst., containing your resignation of the office of Superintendent of the City Home, and also that of Mrs. Eldridge as Matron.

Your long service of between seventeen and eighteen years in the Home has been of great credit to yourselves, of inestimable value to the City and of real helpfulness and kindliness to the inmates of the institution. We feel that the City will meet with a great loss in your withdrawal from office, and we fear it will be difficult to find others who will possess the same uniform spirit of kindness, the same promptness, neatness, practical economy and general management which you have shown during all the time you have been in office.

We fully appreciate your desire for a rest and change of scene, and your need of it after so long a period of active service in our behalf, and we take this opportunity to herewith thank you for the constant and unvarying courtesy always shown toward our Board, and to assure you that we shall ever remember with pleasure the harmonious relations which have always existed between us."

On May 4th the Board elected Charles E. Goodrow as Superintendent and his wife, Emma A., as Matron, and they still hold their positions.

In January the City Physician, Dr. Lewis L. Bryant, having tendered his resignation to the Mayor, to take effect on May 1st, after a continuous

service of twenty years, it was deemed proper that a fitting recognition of his labors among the poor should be made by the Board, and the following resolutions were passed, and sent to Dr. Bryant: —

"*Resolved*, That this Board hereby tenders to Dr. Lewis L. Bryant its sincere thanks for the unvarying courtesy and respect shown it during his entire term of service, in the harmonious and cordial relations which have always been manifested, and it feels assured that the efforts shown by him in behalf of the sick poor of our City have always been prompted by a sincere desire to uplift and alleviate their condition. Realizing that it has been a difficult and trying task to tender perfect satisfaction to all, yet it is believed that he has in the kindness of his heart administered to every one the tenderest sympathy during their time of suffering.

Resolved, That we sincerely wish him the best of success in his future undertakings, and that his coming years may be many and happy."

On May 12th, the Board of Aldermen filled the vacancy by the election of Dr. William G. Brousseau as City Physician, and he now holds the office.

In October, Dr. Charles Bullock, who had served continously on the Board since April 1, 1890, sent his resignation as an Overseer of the Poor to Mayor McNamee, and his resignation was duly accepted.

The Overseers held a meeting on October 26, at which the following action was taken: —

"The Board of Overseers of the Poor, having heard of the resignation of Dr. Charles Bullock, one of their beloved and respected fellow-members, hereby wish to express to him their unfeigned regret at his withdrawal from the Board, and to testify their appreciation of the faithful work which he has done during many years in the interests of the Board, and also of his constant, unselfish and impartial labors in behalf of the worthy poor of our City.

We hope that his interest in the work of our Department, and the unbroken, harmonious relations which have always existed between him and the Board, will long continue to exist.

We direct that this expression of our appreciation for the labors he has performed in the past, and our sorrow at his withdrawal from us now, be entered as a testimonial upon our records."

It was voted to adopt the testimonial and have an engrossed copy of it made and presented to Dr. Bullock, and that a copy be furnished to the press.

On October 28, Mr. Charles Walker, who had served continuously as a member of the Board since May 1, 1886, and as chairman of the Board continuously from May 1, 1899, also sent his letter of resignation to the Mayor, and his resignation was duly accepted.

The Board met on November 23rd and took the following action: —

"Whereas the Board of Overseers of the Poor of the City of Cambridge having learned of the resignation of Mr. Charles Walker, their esteemed and respected chairman, who has served the department for the long term of seventeen years, being chairman and principal director of the Board for over four years:

Therefore be it

Resolved, That the City has lost from one of its Departments a faithful servant, and the poor a kind and considerate friend. Few outside of the Department ever knew of his indefatigable zeal. Under his able and untiring efforts the system of bookkeeping in the central office recently underwent a complete change, and, according to expert authority, is now second to none in the State.

And whereas the press of our City has so truthfully and so fittingly referred to his resignation:

Resolved, That we also tender to him our sincere appreciation of the faithful service which he has rendered and the good example which he has left to his successors.

Resolved, That we sincerely wish him a long and happy future, and we direct that this expression of our appreciation of his long and faithful service and our sincere sorrow at his withdrawal be entered upon our records, and an engrossed copy of the same be made and presented to him."

The list of annual estimates as prepared by the Board were sent to the City Council on January 19, 1903, as follows: —

Outside aid,	salaries,	$3,700 00	other expenses,	$40,000 00		$43,700 00
City Home,	"	7,600 00	" "	12,400 00		20,000 00
Farm,	labor,	4,200 00	supplies,	800 00		5,000 00
House Offal,	"	24,000 00	other expenses,	4,500 00		28,500 00
						$97,200 00

The following appropriations were actually made by the City Council: —

Outside aid,	salaries,	$3,600 00	other expenses,	$38,000 00		$41,600 00
City Home,	"	7,000 00	" "	11,000 00		18,000 00
Farm,	labor,	4,000 00	supplies,	800 00		4,800 00
House Offal,	"	22,500 00	other expenses,	4,500 00		27,000 00
						$91,400 00

The following were the actual expenditures for the year: —

Outside aid,	salaries,	$3,178 78	other expenses,	$39,968 92		$43,147 70
City Home,	"	7,285 91	" "	11,990 53		19,276 44
Farm,	labor,	4,212 55	supplies,	799 86		5,012 41
House Offal,	"	24,169 50	other expenses,	6,678 51		30,848 01
						$98,284 56

The following estimates for revenue were made by the Overseers of the Poor on January 19 1903: —

Outside aid	$3,700 00
City Home	1,000 00
Farm	5,200 00
House Offal	9,500 00
	$19,400 00

The following was the actual revenue during the year: —

Outside aid	$2,476 29
City Home	1,185 64
Farm	3,922 64
House Offal	10,359 99
	$17,944 56

The actual comparative net cost during the past year, with that of 1902, has been as follows: —

	1902.	1903.
Outside aid	$39,006 97	$40,671 41
City Home	18,056 21	18,090 80
Farm	168 53	1,089 77
House Offal	18,596 97	20,488 02
	$75,828 68	$80,340 00

During the year the number of persons at institutions for whom the City has been liable are as follows: —

City Home	164
State Insane Hospitals	176
State Hospital, paupers	25
Insane in families, 2 females, 1 male	3
State Hospital for Epileptics	15
State Hospital for Dipsomaniacs	9
Massachusetts School for Feeble Minded	16
Baldwinville Hospital Cottages for Children	1
Carney Hospital	21
Children's Hospital	2
Boston City Hospital	40
Cambridge Hospital	18
Massachusetts General Hospital	3
Worcester Memorial Hospital	1
Worcester City Hospital	3
Holy Ghost Hospital, Cambridge	2
Newton City Hospital	1
Massachusetts State Sanitorium, Rutland	1

There were nine at Danvers Insane Hospital, seventy-three at the Worcester Insane Hospital, nineteen at the Worcester Insane Asylum, one at the Northampton Insane Hospital, twenty-one at the Westboro Insane Hospital, three at the Taunton Insane Hospital, fifty at the Medfield Insane Asylum.

Two insane females and one insane male have been boarded in families, all under the supervision of the State Board of Insanity. There

have been five mildly insane women and one mildly insane man supported at the Cambridge City Home, in addition to the other insane cared for at the expense of the City.

The amount paid to the State Insane Hospitals and private families for the 203 insane has been $28,923.03, which is $886.90 more than last year. The amount paid the State has been reduced, owing to the fact that the City denies its liability for Cambridge cases supported as insane at the State Hospital and the State Farm, which, if paid for, would have added $7,198.80 to the entire expense for the insane, dating from the time of denial of liability.

The relatives and families of the insane have paid $1,584.02 into the City treasury, and other persons have paid $181.37. Other cities and towns have re-imbursed the City to the amount of $443.62 for aid rendered their poor living in Cambridge. The State Treasurer has paid $262.28 for support of cases having no settlement, which were aided from the office of the Board.

There have been 484 histories taken of new applicants for relief, consisting of 1,452 persons,— 676 males, 776 females — 408 adults and 1,044 minors.

The City Physician has made 1,653 visits upon 122 patients at the City Home, and he has also made 940 visits upon 407 patients outside of the institution. There were forty-nine examinations as to sanity and forty certificates of insanity were issued from his office. There has been paid from the Overseers of the Poor appropriation $283.56 for outside medicines, and $294.39 for City Home medicines. Twenty dollars and fifty cents have been paid for Outside Aid surgical appliances and $10.68 at the City Home. Seventy-one dollars have been paid for outside additional medical service.

There were eleven deaths in the City Home during the year. Thirty-two sick persons were sent to the hospitals. Thirty-five persons received burial in the Cambridge Cemetery on Outside Aid account at the expense of $321.10, and five persons on the City Home account, at an expense of $69.05 for undertaker's service and interment. At the City Home the oldest person to die was a woman of eighty-four years, who died of heart disease, and the youngest was a woman of thirty years who died of consumption.

There have been 164 inmates in the City Home during the year, and there remained eighty-five persons on November 30, 1903.

There have been 127 families, embracing 444 persons, aided from the office of the Board during the past year.

RECAPITULATION.

Total expenditures for Outside Aid, City Home, Farm	$67,436 55
Receipts for the same	7,584 57
Net cost of care of the poor	$59,851 98

Respectfully submitted,

PATRICK CROWLEY,
ALEXANDER MILLAN,
JEREMIAH CROWLEY,
Overseers of the Poor.

REPORT OF THE SUPERINTENDENT OF THE CITY HOME

CAMBRIDGE, December 1, 1903.

To the Overseers of the Poor :—

GENTLEMEN :—The annual report of the Cambridge City Home for the year ending November 30, 1903, is herewith respectfully submitted.

The whole number in the Home during the year has been as follows : —

Males	87
Females	77
Total	164
Adults	155
Minors	9
Whole number in the Home November 30, 1903	85
Average number during the year	86

Included in the whole number in the Home, November 30, 1903, there are : —

INSANE OR DEMENTED.

Males	1
Females	5
Total	6

IDIOTIC OR IMBECILE.

Males	1
Females	1
Total	2

BLIND.

Males	0
Females	1
Total	1

EPILEPTIC.

Males	2
Females	2
Total	4

Included in the whole number discharged during the year, are ten persons sent to other institutions, as follows: —

State Hospital	7
Catholic Home, Boston	1
Carney Hospital	1
St. Mary's Infant Asylum, Boston	1

Remaining in Home November 30, 1903: —

Males	43
Females	42
Adults	85
Minors	0

All statistics of general interest will be exhibited by the following tables: —

TABLE I.

Showing the number and sex of adult persons and minors of all classes received into the Cambridge City Home in each month of the year ending November 30, 1903.

Months.	Adults.		Minors.		Total.	Dependent Children.		Neglected Children.	
	M.	F.	M.	F.		M.	F.	M.	F.
1902.									
December	6	3	0	0	9	0	0	0	0
1903.									
January	4	2	0	1	7	0	1	0	0
February	3	4	1	1	9	0	1	0	0
March	0	5	1	0	6	1	0	0	0
April	2	2	0	0	4	0	0	0	0
May	3	4	0	0	7	0	0	0	0
June	6	5	1	1	13	1	1	0	0
July	4	0	0	0	4	0	0	0	0
August	3	3	0	0	6	0	0	0	0
September	2	1	0	0	3	0	0	0	0
October	3	1	0	0	4	0	0	0	0
November	4	1	0	0	5	0	0	0	0
Totals	40	31	3	3	77	2	3	0	0

TABLE II.

Showing the number and sex of adult persons and minors of all classes discharged from the Cambridge City Home in each month of the year ending November 30, 1903.

Months.	Adults.		Minors.		Total.	Dependent Children.		Neglected Children.	
	M.	F.	M.	F.		M.	F.	M.	F.
1902.									
December	2	1	0	0	3	0	0	0	0
1903.									
January	5	0	0	0	5	0	0	0	0
February	1	4	1	0	6	0	0	0	0
March	3	7	0	2	12	0	2	0	0
April	8	3	0	1	12	0	1	0	0
May	7	6	1	1	15	1	1	0	0
June	3	4	0	0	7	0	0	0	0
July	1	0	0	0	1	0	0	0	0
August	4	3	1	1	9	1	1	0	0
September	2	0	0	0	2	0	0	0	0
October	1	3	1	0	5	0	0	0	0
November	2	1	0	0	3	0	0	0	0
Totals	39	32	4	5	80	2	5	0	0

TABLE III.

Showing the name, age, date of admission, date and cause of death of each person who has died in the Cambridge City Home during the year ending November 30, 1903.

Name.	Age.	Date of Admission.	Date of Death.	Cause of Death.
Annie Barnes	43	Dec. 3, 1902	Dec. 5, 1902	Heart Disease.
Maurice Welch	53	Jan. 23, 1903	Dec. 19, 1902	Chronic Bronchitis.
Mary O'Hearn	81	Oct. 20, 1881	Feb. 13, 1903	Chronic Bronchitis.
Albos R. Parsons	69	Sept. 23, 1902	April 9, 1903	Senile Debility.
Luke Halliday	81	April 18, 1900	April 25, 1903	Senile Debility.
Edward A. Carroll	52	Sept. 3, 1902	April 27, 1903	Consumption.
Mary C. Toomey	30	June 4, 1903	June 5, 1903	Consumption.
Robert B. Healy	74	Jan. 12, 1902	June 24, 1903	Apoplexy.
Susan B. Winn	84	Aug. 19, 1903	Aug. 30, 1903	Heart Disease.
Elizabeth A. Healy	74	Jan. 12, 1903	Oct. 9, 1903	Paralysis and Bronchitis.
Hannah Wigmore	52	June 16, 1903	Nov. 12, 1903	Paralysis.

PRODUCTS OF THE FARM WITH THEIR APPROXIMATE VALUES.

66	bushels beets	$44 60
1,093	dozen celery	1,231 82
304	bushels parsnips	130 30
580	dozen eggs	174 00
818	bushels dandelions	341 21
1,128	dozen radishes	261 93
1,796	dozen lettuce	398 76
1,108	pounds rhubarb	21 33
855	bushels spinach	151 92
246	bushels onions	213 60
152	dozen bunches onions	35 60
86	bushels beet greens	8 95
17	dozen tomato plants	4 33
8,161	bunches beets	203 17
12,660	cabbages	785 39
467	bushels string beans	320 35
10,890	cucumbers	180 95
5	tons squash	105 28
402	bushels tomatoes	202 45
17	bushels peppers	17 30
76	bushels corn	50 80
180	bunches asparagus	21 60
100	boxes strawberries	20 00
5,200	pounds pork	364 00
2	tons hay	30 00
120	cords manure	360 00
		$5,679 64

COMPARATIVE TABLE OF CITY HOME, FARM LEDGE AND HOUSE OFFAL RECEIPTS FOR TWENTY-THREE YEARS ENDING NOVEMBER 30, 1903.

Years.	Board.	Chair Shop.	Farm.	General Sales.	Stone.	House Offal.	Totals.
1881	$322 56	.....	$378 50	.....	$2,529 01	$5,536 88	$8,766 95
1882	705 34	.....	436 54	.....	2,626 17	5,705 22	9,473 27
1883	1,174 96	.....	476 22	$14 19	2,622 00	5,819 55	10,106 92
1884	1,480 93	.....	316 76	.....	4,238 77	6,449 96	12,486 42
1885	2,035 58	.....	335 32	149 85	4,509 84	7,354 26	14,384 95
1886	613 93	$37 50	772 14	319 75	5,611 38	6,926 23	14,280 93
1887	514 64	634 19	1,595 10	241 37	4,684 14	6,856 59	14,526 03
1888	557 28	614 94	2,846 52	213 62	6,662 26	6,721 50	17,617 86
1889	274 84	479 28	3,684 59	144 36	5,564 18	7,324 61	17,471 06
1890	302 49	794 36	4,364 03	150 89	5 651 38	7,386 33	18,649 48
1891	1,201 33	844 62	5,213 68	161 71	6,107 86	7,716 77	21,245 97
1892	1,253 06	899 81	5,371 60	166 45	5,220 50	7,535 57	20,447 55
1893	703 70	325 86	6,400 64	210 09	5,826 74	7,033 52	20,500 05
1894	1,094 89	220 07	6,504 66	615 69	7,955 42	8,218 96	24,609 69
1895	622 77	77 00	6,512 63	160 19	8,265 14	9,045 55	24,682 78
1896	834 52	61 25	5,623 67	147 02	7,639 48	9,155 35	23,461 24
1897	1,294 65	3 60	5,348 47	137 33	10,335 16	7,228 79	24,348 00
1898	1,038 19	.....	5,730 13	277 40	2,172 60	7,264 09	16,482 41
1899	703 17	.....	6,049 47	142 54	.....	6,997 40	13,892 58
1900	611 57	.....	5,082 43	137 40	.....	7,322 05	13,153 45
1901	793 32	.....	5,173 83	83 60	.....	8,016 71	14,067 46
1902	826 69	.....	5,098 37	78 15	.....	9,722 83	15,726 04
1903	659 21	.....	3,922 64	526 43	.....	10,359 99	15,468 27
Totals	$19,619 62	$4,992 48	$87,237 94	$4,077 53	$98,222 03	$171,698 71	$385,849 36

Of the persons who died during the year, three were between eighty and ninety, two between seventy and eighty, one between sixty and seventy, three between fifty and sixty, one between forty and fifty, and

one between thirty and forty. The average age of those who died was sixty-three.

The relative cost of the Offal Department as compared with last year, is shown by the following percentages.

The amount of offal collected was two per cent greater than last year, and the cash receipts six and one-half per cent more, while the expenses were nearly eight per cent more than the year previous. The following figures will explain why the expenses were greater than last year: —

Two offal wagons built		$330 00
Horses purchased in 1903, four	$765 00	
Horses purchased in 1902, one	185 00	
		580 00
Repairs on offal wagons, 1903	$608 00	
Repairs on offal wagon, 1902	178 00	
		430 00
150-foot wagon shed built		350 00
New floor and wash stand, offal barn		125 00
Extra half holidays, May and October, ten		392 00
		$2,207 00

The labor required to build the new shed was performed by men of the regular offal force, as well as all other repairs connected with the Offal Department buildings, such as relaying floors, platforms, etc. In addition to this the twenty wagons of the department were painted by men connected with the department. On account of the number of residents being absent from the City during the summer, a few men can be spared, at times, from the offal wagons, and I think that if there is other work to be done, and they are capable of doing it, they should be given a chance, in preference to outside men.

Under existing conditions, much profit cannot be expected from the farm. No farm can pay very well, with the hours of labor forty-four in each week, from May first to November first.

However, it cannot be said that the farm is a burden on the City, as the following figures will show: —

Cash receipts	$3,922 64
PRODUCTS ON HAND DECEMBER 1, 1903.	
5,200 pounds pork	364 00
130 boxes celery	520 00
2,500 cabbages	75 00
120 cords manure	360 00
	$5,241 64
Less expenses	5,012 41
Balance	$229 23
Vegetables supplied Home one year to December 1st	303 00
Eggs supplied Home one year to December 1st	135 00
Value produced above cost	$667 23

It might be said that the farmers were two weeks behind in getting the seed in this year, the reason for which, I do not know, as it was not under my administration. The drought of last summer which continued for fifty-one days, had a very serious effect upon the crops, without doubt, to the extent of six hundred dollars. Farm expenses were $254.49 less than in 1902.

In closing my report, I wish to extend thanks to Dr. William G. Brousseau and his associates, who provided the inmates with an excellent entertainment September twenty-eighth, and to the group of Harvard students, who also furnished a splendid entertainment November fifteenth. I thank your Board for valuable advice and assistance, cheerfully given, and which has aided me very much in the discharge of my various duties. I also wish to express to all officers, and employees connected with the several departments, for fidelity of service and courteous treatment, my sincere thanks.

Respectfully submitted,

CHARLES E. GOODROW,
Superintendent.

REPORT OF THE CITY PHYSICIAN

1902 — 1903

CAMBRIDGE, MASS., November 30, 1903.

To the Honorable, the City Council of the City of Cambridge: —

GENTLEMEN: — In accordance with the requirements of Chapter 45 of the revised ordinances of 1892, a report of the doings of this office for the year ending November 30, 1903, is hereby rendered: —

CITY HOME.

Number of visits to the City Home	210
Number of persons attended there	122
Number of professional visits to the same	1,653
Number of births at City Home	0
Number of deaths at City Home	4
Cost of medicines and surgical appliances	$305 07

OUTSIDE AID.

Number of persons attended for Overseers of Poor	407
Number of professional visits to the same	940
Number of examinations for insanity	49
Number of persons committed	40
Number sent to hospital for treatment	32
Number of outside deaths	18
Medicines and surgical appliances	$304 06

DEPARTMENTAL SERVICE AND TOTALS.

Number of persons visited at the police stations	40
Number of visits to same	44
Number of persons examined for the Law Department	20
Number of employees examined for injuries received	20
Number of vaccinations for the School Committee	101
Number of civil service examinations	28
Number of call men examined at the request of the Mayor	8
Number of examinations of policemen for retirement	4
Total number of persons receiving professional care	750
Total number of professional visits to the same	2,637

Respectfully,

WILLIAM G. BROUSSEAU,
City Physician.

ANNUAL REPORT OF THE CHIEF ENGINEER OF THE FIRE DEPARTMENT

CHIEF ENGINEER'S OFFICE, CITY HALL,
CAMBRIDGE, MASS., December 1903.

To the Honorable, the City Council: —

GENTLEMEN: — In compliance with the provisions of Section 6 of the Ordinance governing the Fire Department, I have the honor to submit herewith a report for the fiscal year commencing December 1, 1902, and ending November 30 1903, being my twenty-fifth annual report.

THE MANUAL FORCE.

With the exception of the loss by death of Engineman Hiram Blood of Steamer No. 3 the manual force remains the same as last reported, under the following classification.

The permanent force who devote their whole time to the City consists of: —

1 Chief Engineer.	9 Assistant Enginemen.
1 Assistant Chief Engineer.	20 Drivers.
3 Captains.	1 Tillerman.
5 Lieutenants.	8 Hosemen.
7 Enginemen.	4 Laddermen.
	59

The call force who only devote their time to the City in case of fire, consists of: —

7 Captains.	35 Hosemen.
7 Lieutenants.	18 Laddermen.
	67

Making a total of one hundred and twenty-six.

The sudden death of Engineman Hiram Blood, stricken down with apoplexy, soon after arriving at his home for breakfast on the morning of October 15, caused wide-spread grief among his associates, and deep sympathy for his family.

The members of the Department, as a last sad token of respect to a faithful associate, attended the funeral obsequies in a body.

He had been in the service as engineman of Steamer No. 3 for over 41 years, having been appointed on September 18, 1862, to take charge of the first steam fire engine purchased by the City, which was placed in service on that date.

APPARATUS.

In December Engine No. 7 was sent to the Manchester Locomotive Works, Manchester, N. H., to be fitted with a new boiler and its other parts thoroughly repaired and painted. The work was done in a satisfactory manner and the engine returned to this City July 2. The remaining apparatus in the service of the Department remains the same as last reported, having had the customary repairs made upon it during the year in order to keep it in serviceable condition.

I would respectfully recommend that provisions be made the coming year, for the fitting up of some of the apparatus with rubber tires. I am satisfied it would be a great saving in the wear and tear of the apparatus as well as a protection against accident to the men who have to ride upon it in answering the calls for fire.

HOSE.

The amount of serviceable two and one-half inch cotton rubber-lined hose now in use by the several steamer companies is 13,400 feet. During the year 600 feet was purchased and an equal amount was condemned. There is also 900 feet of one-inch rubber hose and 250 feet of two-inch cotton and linen hose in service on chemical engines.

HORSES.

During the year one of Engine No. 1 horses dropped dead while responding to an alarm of fire, and one horse was sold because of lameness which rendered him useless for fire service, and two were bought. There are thirty-eight horses now in the service, and with few exceptions are in good condition and suitable for the work required of them. The exceptions are horses that have grown old and stiff in the service and are not able to perform the quick work required of them and must be exchanged for younger ones.

HOUSES.

The houses occupied by this Department, as a rule, are in good condition. All repairs found needed in order to keep them in proper condition for the year were made.

I desire to call your attention to the fact that land was bought, this year, at the junction of Sherman and Garden Streets with the intention of erecting upon it a building suitable for the accommodation of an engine and ladder company. It is hoped that this matter will soon again be taken up and provisions made for the erection of a building suitable for the above purpose, as that section of the City is in early need of better fire protection.

APPROPRIATIONS, RECEIPTS AND EXPENDITURES.

The appropriation for the maintenance of this Department for the fiscal year ending November 30, 1903, was $97,521.98; the receipts were $190.50. The principal items of expenditures were as follows: —

Land for engine house	$2,815 00
Salaries	78,425 98
Apparatus, and repairs on	2,657 20
Buildings, repairs on	1,367 56
Electric light and gas	800 88
Fuel for houses and engines	3,017 71
Hay, grain and straw	4,623 47
Horses and horse hire	845 00
Horseshoeing	894 50
Hose, and repairs on	534 95
Washing bedclothes, etc.	242 74
Miscellaneous	1,111 99
Total	$97,336 98
Balance unexpended	185 00

FIRES AND ALARMS.

The whole number of fires and alarms during the year from all causes was 296; the number of bell alarms, not including four second and two third alarms was 218; number of still alarms was 78. The Department rendered assistance at three fires out of the City. The fire boat of Boston rendered valuable assistance in extinguishing a fire in several thousand tons of coal on the wharf of the Boston Elevated Railway Company's power station, located at East Cambridge, on October 3.

The total losses together with the insurance and the amount of insurance paid was as follows:

	Losses.	Insurance.	Insurance Paid.
On buildings	$44,412 48	$309,988 16	$42,812 48
On contents	56,212 54	167,931 80	52,512 54
Totals	$100,625 02	$477,919 96	$95,325 02

DISCHARGED.

Lieutenant Arthur C. Day and Eliot E. Alley, call members, December 1, at their own request. Their names were put on the pension roll to take effect on January 1.

William J. Donavan, a call member, May 1, at his own request.

Louis J. Anshelm, a call member, May 11, at his own request.

George H. Maytum, a call member, September 1, at his own request

Hiram Blood, a permanent member, October 15, deceased.

APPOINTMENTS.

John J. Balfe and Leo J. Shields were appointed call members January 27; George H. Maytum was appointed a call member June 3; James J. Clifford was appointed a permanent member November 9; Joseph King and Thomas J. McGowan were appointed call members November 30.

ACCIDENTS.

I am pleased to report that but few accidents have occurred among the members of this Department while in the performance of their duty the past year, and that those which did occur were not of a serious nature.

Miss Mary Fitzgerald, who resided at number 9 Harrison Street, was fatally burned while lighting a fire with kerosene oil on February 23.

CONCLUSION.

To the officers and members of the Department my thanks are due for their faithful attention to duty and their promptness in answering the numerous calls during the year. I also wish to convey my thanks to the members of the police force for valuable assistance rendered at fires.

Respectfully submitted,

THOMAS J. CASEY,

Chief Engineer.

APPENDIX

ROLL OF OFFICERS AND MEMBERS.

ENGINEERS.

Name.	Rank.	Age.	Residence.
Thomas J. Casey.	Chief Engineer.	70	168 Lexington avenue.
Nathaniel W. Bunker	Asst. Chief Engineer.	60	276 Portland street.

ENGINE COMPANY No. 1.

House, 108 Mt. Auburn Street.

No. of Badge	Name.	Rank.	Age.	Residence.
	Permanent Force.			
31	Daniel E. Powers.	Engineman	44	108 Mt. Auburn street.
2	Hiram W. Hooker.	Asst. Engineman	64	108 Mt. Auburn street.
1	Bernard J. Coakley	Driver.	28	20 Walden street.
28	Daniel E. Shea.	"	46	16 Athens street.
4	Thomas F. Drummond.	Hoseman	35	192 Green street.
33	John Gibson, Jr.	"	28	114 Foster street.
	Call Force.			
27	John L. Jones.	Captain.	52	409 Green street.
29	Thomas H. Kneeland.	Lieutenant.	39	108 Mt. Auburn street.
25	James Jefferson.	Hoseman	49	4½ South street.
23	J Joseph Corcoran.	"	43	34 Ash street.
74	James W. Irwin.	"	48	9 Storey street.
97	George B. Morse.	"	36	6 DeWolf street.
30	Francis V. Doyle.	"	26	102 Fayerweather street.

ENGINE COMPANY No. 2.

House, 384 Massachusetts Avenue.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
41	William H. Cairns.	Engineman.	40	18 Vernon street.
80	John H. McDermott.	Asst. Engineman.	52	11 Dodge street.
75	Charles A. Olsen.	Driver.	36	72 Inman street.
68	James H. Furfey.	"	46	59 Prince street.
47	Exurie J. Ouimette.	Hoseman	40	11A Jay street.
	Call Force.			
32	James Cunningham.	Captain.	61	42 Parker street.
40	George F. Donovan.	Lieutenant.	34	30 Union street.
35	Benjamin D. Foss.	Hoseman	67	28 Elm street.
37	John Haley.	"	49	358 Massachusetts avenue.
88	Charles H Cutting.	"	51	812 Main street.
110	Edward Flynn.	"	26	251 Elm street.
67	John J. Balfe.	"	32	10 Seckle street.

ENGINE COMPANY, No. 3.

House, 35 Third Street.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
62	Charles A. Blare	Asst. Engineman	42	22 Springfield street.
8	Peter F. McSorley	Driver	44	94 Otis street.
49	Patrick J. Hayes	"	41	92 Gore street.
15	William F. Newman, 2d	Hoseman	33	37 Jefferson street.
	Call Force.			
42	Walter Baker	Captain	50	40 York street.
48	John F. Brassel	Lieutenant	49	3 Marney street.
46	Timothy J. Mahoney	Hoseman	56	346 Vine street.
112	Charles H. Leddy	"	43	20 Hardwick street.
16	William Reilly	"	34	34 Gore street.
78	Joseph A. Lincoln	"	33	57 Spring street.
45	Leo J. Shields	"	24	341 Cambridge street.

ENGINE COMPANY, No. 4.

House, 2029 Massachusetts Avenue.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
10	John E. Ricker	Engineman	59	2029 Massachusetts avenue
55	Jeremiah O'Connor	Asst. Engineman	45	2 Olive place.
19	Albert A. Benson	Driver	61	52 Boylston street.
11	George E. Muzzey	"	62	5 Blake street.
57	John T. Henderson	Hoseman	34	27 Creighton street.
	Call Force.			
51	Daniel A. McCaughin	Captain	46	Rear 5 Russell street.
53	Redmond M. Burke	Lieutenant	34	Rear 5 Russell street.
54	George F. Durgin	Hoseman	35	48 Norris street.
52	Joseph T Vocell	"	38	12 Bolton street.
105	William F. Henderson	"	39	74 Rice street.
50	George L. Vocell	"	34	23 Bolton street.
56	Daniel F. McConologue	"	31	28 Harvey street.

ENGINE COMPANY, No. 5.

House, Inman Square.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
13	Charles E. Conner	Engineman	52	1335 Cambridge street.
115	Frank McGrath	Asst. Engineman	39	168 Willow street.
3	Charles R. Hooker	Driver	59	1411 Cambridge street.
63	George W. Montgomery	"	43	40½ Baldwin street.
9	George L. Church	Hoseman	24	82 Inman street.
	Call Force.			
59	Francis P. Scanlan	Captain	57	1343 Cambridge street.
64	William T. King	Lieutenant	47	231 Prospect street.
61	George W McIntire	Hoseman	49	7 Springfield street.
66	James H. McGrath	"	47	12 Seckle street.
60	George W. Stevens	"	37	1307 Cambridge street.
12	John T. Downey	"	25	994 Cambridge street.
101	Hiram W. Hooker, 2d	"	27	1411 Cambridge street.

ENGINE COMPANY No. 6.

House, 176 River Street.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
98	J. Lewis Howe	Engineman	50	184 River street.
87	Charles A. Cairns	Asst. Engineman	37	152 River street.
92	Robert J. Buchanan	Driver	32	20 Grigg street.
127	John J. O'Callahan	"	34	564 Green street.
34	Herman E. Gutheim	Hoseman	27	60 Spring street.
	Call Force.			
24	John H. Brown	Captain	52	206 River street.
73	Charles H. Waite	Lieutenant	57	46 Lopez street.
100	John E. Savage	Hoseman	49	29 Andrew street.
103	Thomas F. Mullin	"	30	184 River street.
106	Mortimer F. Hartney	"	29	3 Jay street.
71	Charles P. Cox, Jr.	"	32	6 Howard street.
123	William J. Doyle	"	32	23 Oak Circle.

ENGINE COMPANY No. 7.

House, 350 Main Street.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
85	Thomas F. O'Connell	Engineman	42	155 Webster avenue.
36	John McCarthy	Asst. Engineman	50	139 Massachusetts avenue.
121	John D. Shea.	Driver	32	136 Winsor street.
126	Dennis R. Sullivan	"	32	35 Harvard street.
5	Henry J. O'Brien	Hoseman	27	748 Cambridge street.
	Call Force.			
93	George A. Garrity	Captain	42	7 Pioneer street.
124	Joseph A. Wood	Lieutenant	41	81 Hampshire street.
109	James E. Bligh	Hoseman	32	142 Willow street.
125	Edward Clark	"	35	234 Winsor street.
108	James A. S Drinkwater.	"	29	721 Main street.
89	Joseph S. Hayes	"	25	81 Webster avenue.
96	Joseph King	"	26	56 Sixth street.

CHEMICAL ENGINE COMPANY No. 1.

House, 5 Western Avenue.

No. of Badge	Name.	Rank.	Age.	Residence.
	Permanent Force.			
17	Lewis C. Clark	Lieutenant	58	264 Green street.
82	James T. McCabe	Engineman	40	125 Green street.
99	John H. Dardis	Driver	30	27 Park street.

CHEMICAL ENGINE COMPANY, No. 2.

House, 167 Lexington Avenue.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
58	William H. Barrow.....	Lieutenant	34	106 Fayerweather street.
6	Richard J Doyle.....	Engineman.....	29	104 Fayerweather street.
18	William Haley.....	Driver.....	57	133 Lexington avenue.
65	Timothy Curran.....	Chief's Driver.....	34	102 Fayerweather street.

LADDER COMPANY, No. 1.

House, Eliot Square.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
44	Cutler L. Vose.....	Captain.....	35	409 Green street.
114	Angus H. McDonald.....	Lieutenant	33	Ladder House No. 1.
26	Walter E. Chapman.....	Driver.....	36	125 Mt. Auburn street.
77	Benjamin McArthur.....	Ladderman.....	29	4 De Wolf street.
122	Arthur G. McArthur.....	"	31	4 De Wolf street.
	Call Force.			
79	Edward P. Donahoe. ...	Ladderman.....	46	1 Willard street court.
72	Joseph E. Burke.....	"	41	149 Putnam avenue.
70	John W. Jefferson.....	"	38	98 Winthrop street.
107	Edward Grant.....	"	26	11 Gerry street.
119	Frederick A. Reed.....	"	32	236 Western avenue.
104	William J. Sullivan.....	"	25	342 Broadway.
123	Thomas J. McGowan....	"	38	17 South street.

LADDER COMPANY, No. 2.

House, 276 Portland Street.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
22	John T. McNamee.....	Captain.....	48	96 Winthrop street.
83	James M. Casey.....	Lieutenant	39	353 Huron avenue.
20	Thomas Mimnaugh.....	Driver.....	50	35 Warren street.
38	Albert R. Wait.	Ladderman.....	31	934 Cambridge street.
86	William J. Atkinson.....	"	27	956 Cambridge street.
	Call Force.			
90	Albert Smith.....	Ladderman	49	233 Broadway.
95	Louis J. Stanger.....	"	49	275 Vine street.
111	Jeremiah F. Hayes.....	"	37	17½ Marney street.
116	Thomas J. Lane	"	39	134 Otis street.
113	William G. Johnson.....	"	42	14 Springfield street.
112	Thomas J. Parks.....	"	27	148 Berkshire street.
21	Edward E. Gaughan.....	"	25	78 Berkshire street.

LADDER COMPANY No. 3.

House, 394 Massachusetts Avenue.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
43	William F. Newman.....	Captain.....	58	66 Winter street.
117	Edward F. Conroy.....	Lieutenant.....	32	10 Mt. Auburn street.
39	Thomas H. McCourt.....	Tillerman.....	33	62 Columbia street.
118	William C. Richardson...	Driver.....	35	51 Columbia street.
	Call Force.			
69	Charles Emerson.....	Ladderman.....	58	5 Kinnaird street.
76	Charles A. Sharon.....	"	55	Rear 13 Pine street.
91	Lincoln E. Wheeler.....	"	59	16 Columbia street.
120	Frederick Quenandon....	"	31	562 Franklin street.

FIRES AND ALARMS.

From December 1, 1902, to December 1, 1903.

DECEMBER.

Friday, Dec. 5, 7.58 A. M. Box 13.

No. 336 Cambridge Street. Occupied by Ephraim Potter as apothecary. No loss. Cause, oil heater taking fire.

Friday, Dec. 5, 8.59 P. M. Box 62.

No. 8 Hilliard Street. Occupied by G. L. Kittredge as dwelling. No loss. Cause, soot in chimney afire.

Saturday, Dec. 6, 11.31 A. M. Box 37.

No 15 Pleasant Place. Owned by Morrill estate Loss, $305. Insurance, $3,200. Occupied by T. S. Hall as dwelling. Loss $50. No insurance. Originated in a portico used for keeping food. Cause, unknown.

Saturday, Dec. 6, 5.19 P. M. Box 131.

No. 3 Jefferson Street. Cause, smoke mistaken for fire.

Saturday, Dec. 6, 9.40 P M. Still.

No. 67 Murray Street. Occupied by Annie Clark as dwelling. Loss, trifling. Cause, thawing out water pipe.

Sunday, Dec. 7, 8.27 A.M. Box 17.

No. 55 Hastings Street. Owned by F. L. Jones as dwelling. Loss, $35. Insurance, $500. Cause, defective chimney.

Monday, Dec. 8, 10 04 P M. Box 234.

No. 182 Prospect Street. Owned by J. P. Gregory as dwelling. No loss. Originated in the cellar. Cause, defective chimney.

Tuesday, Dec. 9, 7.42 A. M. Box 23.

No. 66 Brookline Street. Owned by D. A. Buckley estate. Occupied as dwelling. Loss trifling. Cause, thawing out water pipe.

Tuesday, Dec. 9, 4 P. M. Still.

No. 62 Antrim Street. Owned by T. F. Quinn as dwelling. No loss by fire. Cause, explosion of water back in stove.

Tuesday, Dec. 9, 4.30 P. M. Box 32.

No. 997 Cambridge Street. Owned by Cornelius White as store. Loss trifling. Cause, thawing out water pipe.

Tuesday, Dec. 9, 8.02 P. M. Box 136.

No. 75 Norfolk Street. Owned by F. T. Billup. Loss, $100. Insurance, $1,000. Occupied by F. T. Billup as dwelling. Loss, $150. Insurance, $1,000. Cause, oil heater taking fire.

Thursday, Dec. 11, 12.51 P. M. Box 43.

No. 95 Banks Street Owned by Peter Burns as dwelling. Loss, trifling. Originated in water closet in basement. Cause, thawing out water pipe.

Friday, Dec. 12, 12.17 A. M. Box 17.

No 2 Hasting Street. Owned by W. H. H. Tuttle. Loss, $1,200. Insurance, $1,500. Occupied by John Mandly as dwelling. Loss, trifling Cause, oil heater taking fire.

Monday, Dec. 15, 12 55 P. M. Still.

No. 92 Mt. Auburn Street. Owned by P. J. Rowe. Loss, trifling. Occupied by M. J. O'Brien as groceries and provisions. Loss, $193. Insurance, $5,000. Originated in rubbish barrel. Cause, hot ashes.

Thursday, Dec. 18, 7.40 P. M. Still.

No. 326 Prospect Street. Owned by Patrick Flynn. Loss, $15. Insurance, $3,000. Occupied by Patrick Flynn as dwelling. Loss, $73. Insurance, $1,500. Originated in a bedroom on second floor. Cause, top of lighted match flying into drapery.

Sunday, Dec. 21, 6.40 P. M. Box 34.

No. 185 Elm Street. Owned by John Henue. Loss, $25. Insurance, $2,400. Occupied by R. F. Lewis as dwelling. Loss, trifling. Originated in a closet. Cause, unknown.

Thursday, Dec. 25, 9.04 A. M. Box 162.

No. 22 Bradbury Street. Occupied by George Richardson as stable. Loss, trifling. Cause, thawing out water pipe.

Friday, Dec. 26, 1.19 P. M. Box 178.

No. 41 Stearns Street. Owned by W. H. Zirkel. Loss, $130. Insurance, $4,000. Occupied by W. H. Zirkel as dwelling. Loss, $146. Insurance, $1,200. Originated in a clothes closet on second floor. Cause, child and matches.

Saturday, Dec. 27, 9.50 P. M. Box 63.

No. 18 Hawthorn Street. Occupied as dwelling. Cause, smoke mistaken for fire.

Sunday, Dec. 28, 4 P. M. Still.

No 38 Jefferson Street Owned by J. F. Lavey. Loss, $38. Insurance, $3,500. Occupied by E. F. Murnaghan as dwelling. Loss, $100. Insurance, $1,500. Cause, oil heater taking fire.

Tuesday, Dec. 30, 3 01 P. M. Box 27.

No. 237½ Broadway. Owned by F. W. Tilton. Loss, $13. Insurance, $4,000. Occupied by F. P. Elliott as dwelling. Loss, $30. No insurance. Originated in a curtain. Cause, supposed from sparks.

Wednesday, Dec. 31, 1.05 P. M. Box 137.

No 162 Western Avenue. Owned by C. V. Knight. Loss, $12. Insurance, $1,500. Occupied by Isaac Costalla as dwelling. Loss, $25. No insurance. Originated in a lounge. Cause, sparks from smoker's pipe.

JANUARY.

Thursday, Jan. 1, 3.30 A. M. Box 58.

No. 1599 Massachusetts Avenue. Owned by F. E. Saunders. Loss, $90. Insurance, $4,000. Occupied by E. S. Spyvee as dwelling. Loss, $50. No insurance. Originated near furnace in basement. Cause, supposed by sparks from furnace.

Thursday, Jan. 1, 5.45 P. M. Still.

No. 62 Hampshire Street. Occupied by H. F. Sparrow & Co., as confectioners. Cause, accidental automatic alarm.

Friday, Jan. 2, 5.45 P. M. Still.

No. 62 Brattle Street. Owned by Richardson heirs as dwelling. No loss. Cause, soot in chimney afire.

Saturday, Jan. 3, 11.30 A. M. Still.

No. 11 Marion Street. Owned by William Nixon as dwelling. Loss, $25. Insurance, $2,000 Cause, defective stove pipe.

Saturday, Jan. 3, 10 P. M. Still.

No. 3½ Marcella Street. Occupied by James Hanerbery as dwelling. Loss, trifling. Originated in a lounge. Cause, pipe smoking.

Sunday, Jan. 4, 4.44 P. M. Box 234.

No. 13 Gardner Street. Owned by Catherine Noven. Loss, $61. Insurance, $2,000. Occupied by Maria Rappercett as dwelling. Loss, trifling. Cause, mice and matches.

Sunday, Jan. 4, 5.15 P. M. Still.

No. 116½ Berkshire Street. Owned by Thomas Stevenson. Loss, $11. Insurance, $6,000. Occupied by A. G. Hedstrom as dwelling. Loss, $50. Insurance, $800. Cause, candle igniting Christmas tree.

Monday, Jan. 5, 2.36 P. M. Box 271.

No. 2 Cedar Park. Owned by J. F. O'Brien as dwelling. No loss. Cause, defective chimney.

Sunday, Jan. 11, 11.10 A. M. Still.

No. 74 Sparks Street. Occupied by Edward Channing as dwelling. No loss. Cause, soot in chimney afire.

Monday, Jan. 12, 5.36 A. M. Box 216.

No. 100 Main Street. Owned by B. F. Brown as unoccupied building. No loss. Cause, unknown.

Monday, Jan. 12, 9.12 P. M. Box 32.

No 479 Winsor Street. Owned by John Martin. Loss, $58. Insurance, $1,500. Occupied by Catherine Murphy as dwelling. Loss, $20. No insurance. Cause, lighted lamp igniting curtain.

Tuesday, Jan. 13, 6.52 P. M. Box 14.

Somerville Avenue, Somerville. Owned by Armstrong Cooperage Co. Assistance rendered.

Wednesday, Jan. 14, 12.55 A. M. Box 428.

No. 29 Hampshire Street. Owned by Boston Woven Hose and Rubber Co. Originated in spreader-room. No loss. Cause, friction of rollers.

Friday, Jan. 16, 10.04 A. M. Box 17.

No 136 Washington Street. Owned by E. M. Pindell. Loss, $250. Insurance, $700. Occupied by W. A. Jones as dwelling. Loss, $175. Insurance, $500. Cause, unknown.

Friday, Jan. 16, 5.56 P. M. Box 176.

No. 182 Upland Road. Occupied by H. A. Norton as dwelling. Loss trifling. Cause, hot ashes in barrel.

Saturday, Jan. 17, 4.17 P. M. Box 427.

No. 205 Broadway Occupied by Barbour-Stockwell Co. Cause, escaping steam mistaken for fire.

Sunday, Jan. 18, 10.58 A. M. Box 32.

No. 289 Elm Street. Owned by H. S. Connors as dwelling. Loss, trifling. Cause, sparks dropping from open chimney flue.

Sunday, Jan. 18, 3.05 P. M. Box 178.

No. 287 Walden Street. Occupied by New England Brick Co. Loss, trifling. Cause, sparks from kiln igniting shed.

Sunday, Jan. 18, 11.45 P. M. Box 215.

No. 46 Ninth Street. Cause, smoke from chimney mistaken for fire.

Tuesday, Jan. 20, 10.20 A. M. Still.

No. 156 Brattle Street. Occupied by M. E. Blatchford as dwelling. Cause, smoke mistaken for fire.

Tuesday, Jan. 20, 1.17 P. M. Box 139.

Magazine Street. Cause, false alarm given by a malicious boy.

Thursday, Jan. 22, 3.44 P. M. Box 134.

No. 79 Tremont Street. Owned by Minnie Crafts as dwelling. Loss, $50. Insurance, $3,500. Originated around the chimney. Cause, mice and matches.

Sunday, Jan. 25, 9.21 P. M. Box 65.

No. 22 Sacramento Street. Owned by Appleton Clark. Loss, $210. Insurance, $3,000. Occupied by E. E. Fay as dwelling Loss, $160. Insurance, $1,500. Originated in bathroom, second floor. Cause, oil heater taking fire.

Tuesday, Jan. 27, 11.10 A. M. Box 73.

No. 16 Jackson Street. Owned by Dennis Murphy as dwelling. Loss, $20. Insurance, $1,500. Cause, thawing out frozen water pipe.

Friday, Jan. 30, 10.22 A. M. Box 26.

No. 719 Main Street. Owned by Howe estate. Loss, $97. Insurance, $3,600. Occupied by Joseph Perry as barber. No loss. Cause, explosion of an oil lamp.

FEBRUARY.

Sunday, Feb. 1, 8.25 A. M. Box 116.

No. 210 Main Street. Occupied by Michael Lyons as dwelling. Loss, trifling. Cause, smoking in bed.

Tuesday, Feb. 3, 7.33 A. M. Box 7.

No. 4 Bridge Street. Occupied by Proctor Brothers as stable. Cause, smoke mistaken for fire.

Wednesday, Feb. 4, 7.01 P. M. Still.

No. 4 Murray Street. Occupied by G. E. Gardner as dwelling. Loss, trifling. Cause, explosion of an oil lamp.

Thursday, Feb. 5, 9.03 A. M. Still.

No. 315 Broadway. Occupied by T. H. Heaton as dwelling. No loss. Cause, explosion of coal gas in chimney.

Thursday, Feb. 5, 7.57 P. M. Box 52.

No. 1033 Massachusetts Avenue. Occupied by J. J. Connell as dwelling. No loss. Cause, soot in chimney afire.

Saturday, Feb. 7, 6 49 A. M Box 126.

No. 13 Suffolk Street. Occupied by Emily Berger as dwelling. No loss. Cause, hot coals dropping from stove.

Saturday, Feb. 14, 4.56 P. M. Box 28.

No. 30 Davis Street. Owned by estate of J. L. Bailey as dwelling. Loss, $20. Insurance, $1,500. Originated on the roof. Cause, sparks from chimney.

Sunday, Feb. 15, 4.23 A. M. Box 115.

No. 129 Munroe Street. Owned by Woodward Emery. Loss, $105. Insurance, $2,500. Occupied by Michael McDonald as dwelling. Loss, trifling. Originated in a lounge. Cause, smoking pipe.

Sunday, Feb. 15, 9.35 P. M. Still.

No. 138 Brattle Street. Occupied by E. A. Darling as dwelling. No loss. Cause, soot in chimney afire.

Tuesday, Feb. 17, 4.53 A. M. Box 416.

Binney Street. Occupied by Boston Bridge works. Loss, $238. Insurance, $238. Originated in a workman's greasy overalls. Cause, spontaneous combustion.

Thursday, Feb. 19, 1.05 P. M. Box 78.

No. 69 Concord Avenue. Owned by M. M. Holley as dwelling. No loss, Cause, soot in chimney afire.

Friday, Feb. 20, 12.33 P. M. Box 131.

No. 736 Cambridge Street. Owned by Louis Sandler. Loss, $35. Insurance, $4,000. Occupied by Kopple Schwartz as dwelling. Loss $115. Insurance, $500. Originated in a bedroom. Cause, children and matches.

Saturday, Feb. 21, 2.40 P. M. Box 116.

No. 297 Main Street. Owned by J. H. Black. Loss, $115. Insurance, $2,200. Occupied by G. J. Whitman as dwelling. Loss, $75. Insurance, $825. Originated in a partition. Cause, mice and matches.

Monday, Feb. 23, 6.42 P. M. Box 26.

No. 9 Harrison Street. Owned by E. D. Brooks. Loss, $15. Insurance, $5,000. Occupied by Mary Fitzgerald as dwelling. Cause, explosion of a can of oil which was being used in kindling a fire. Miss Fitzgerald was fatally burned. Her clothes having taken fire.

Monday, Feb. 23, 10.20 P. M. Still.

No. 100 Gore Street. Owned by John McDonald. Loss, $30. Insurance, $5,000. Occupied by John Collins as dwelling. Loss trifling. Cause, lighted cigar on bed.

Tuesday, Feb. 24, 4.30 P. M. Still.

No. 36 Quincy Street. Occupied by Alexander Agassiz as dwelling. No loss. Cause, soot in chimney afire.

Friday, Feb. 27, 8.34 P. M. Box 126.

No. 111 Pine Street. Owned by A C. Lamson. Loss, $60. Insurance, $1,500. Occupied by Arved Anderson as machine shop. Loss, $104. Insurance, $700. Originated in the basement. Cause, explosion of an oil lamp.

Saturday, Feb. 28, 1 38 P. M. Box 31.

No. 112 Willow Street. Occupied by Thomas Ryan as dwelling. Loss, trifling. Cause, dropping of a lighted oil lamp.

MARCH.

Wednesday, March 4, 7.41 P. M. Box 8.

First Street. Cause, false alarm given by some malicious person.

Wednesday, March 4, 9 15 A. M. Still.

No. 11 Meacham Road. Occupied by H. G. Leseur as dwelling. Loss, trifling. Cause, oil stove taking fire.

Wednesday, March 4, 8.50 P. M. Still.

No. 4 Kirkland Place. Occupied by J. M. Peirce as dwelling. No loss. Cause, soot in chimney afire.

Thursday, March 5, 1.34 P. M. Box 134.

No. 135 Tremont Street. Owned by J. H. Keenan as dwelling. No loss. Cause, soot in chimney afire.

Friday, March 6, 7 P. M. Still.

No. 28 Second Street Occupied by Erita Lind as dwelling. Loss, trifling. Cause, upsetting of a lighted lamp.

Monday, March 9, 3 45 A. M. Box 428.

No. 29 Hampshire Street Occupied by Boston Woven Hose & Rubber Co. Originated in the spreader-room. Loss, trifling. Cause, ignition of naphtha vapor.

Monday, March 9, 11.25 P. M. Box 126.

No. 346 Washington Street. Owned by Mary Nichols. Loss, $403. Insurance, $3,000. Occupied by A. K. Freeman as dwelling. Loss, $75. Insurance, $700. Cause, defective chimney.

Friday, March 13, 10.20 A. M. Still.

No. 39 Austin Street. Occupied as dwelling. Cause, smoke from chimney mistaken for fire.

Saturday, March 14, 11 A. M. Box 32.

Foot of Winsor Street. Owned by Middlesex Paper Mill. Fire in Somerville.

Saturday, March 14, 3.59 P. M. Box 418.

No. 145 Broadway. Occupied by Sylvester Tower as piano key manufactory. Loss, $797. Insurance, $797. Cause, friction in machinery.

Tuesday, March 17, 6.45 P. M. Still.

No. 55 Columbia Street. Occupied by Elizabeth Clason as dwelling. Loss, trifling. Cause, burning of a tablecloth.

Wednesday, March 18, 11.01–11.06 P. M. Boxes 79–162.

No. 24 Bradbury Street. Owned by John Twohig. Loss, $275. Insurance, $1,000. Unoccupied dwelling. Cause, incendiary.

Friday, March 20, 4.40 A. M. Box 7.

No. 42 Bridge Street. Owned by Charles Linehan. Occupied as hennery. Loss, trifling. Originated on outside of building. Cause, electric wires.

Wednesday, March 25, 11.50 A. M. Still.

No 538 Main Street. Occupied by Ivers & Pond Piano Co. Cause, accidental automatic alarm.

Wednesday, March 25, 11.45 P. M. Still.

Ninth Street. Cause, rubbish burning on dump.

Thursday, March 26, 1.50 A. M Still.

Fire in East Somerville. Assistance called for and rendered.

Thursday, March 26, 2.15 P. M. Still.

Foot of Winsor Street. Owned by Middlesex Paper Co , as storage of paper. Loss trifling. Unknown.

Thursday, March 26, 4.56 P. M. Box 116.

No. 56 Broadway. Owned by J. K Burrage as dwelling Loss, $13. Insurance, $800. Originated on the roof. Cause, sparks from a chimney.

Thursday, March 26, 7.39 P M Box 58.

No. 1558 Massachusetts Avenue. Owned by J. M. W. Hall as dwelling. No loss. Cause, soot in the chimney afire.

Saturday, March 28, 12.35–12.39 P. M. Box 32.

Foot of Winsor Street. Owned by Middlesex Paper Co. Loss, $1,000. No insurance. Occupied by Middlesex Paper Co. as stable. Loss, $100. No insurance. No. 312 Elm Street. Owned by Julia Buckley as dwelling. Loss, $35 Insurance, $1,500. Originated on the roof. Cause, sparks from a burning building.

Saturday, March 28, 3.54 P. M. Box 15.

No. 238 Vine Street. Occupied by G. P. Moran as provision store. Loss, trifling. Cause, coat in contact with hot stove pipe.

Monday, March 30, 4 35 P. M. Still.

No. 1000 Massachusetts Avenue Occupied by F. C. Allen as dwelling. Loss, trifling. Cause, hot poker igniting wipping clothes.

Tuesday, March 31, 5.44 P M. Box 27.

No 114½ Market Street. Occupied by W H. Beresford as dwelling. No loss. Originated in old paper in the attic. Cause, mice and matches.

APRIL.

Friday, April 3, 6.57 A. M. Box 24.

No. 194 Brookline Street. Owned by estate of James Furfey as dwelling. No loss. Cause, soot in chimney afire.

Friday, April 3, 7.35 A. M. Box 32.

No. 224 Webster Avenue. Occupied by Jeremiah Murphy as dwelling. Loss, $15. No insurance. Cause, smoking in bed.

Sunday, April 5, 5.19 P. M. Box 42.

No. 335 Putnam Avenue Owned by Daniel Bartlett as unoccupied building. Loss, trifling. Originated on second floor. Cause, incendiary.

Tuesday, April 7, 9 54–10 A. M. Box 113.

No. 50 Second Street. Owned by Irving & Casson. Loss, $9,000. Insurance, $9,000. Occupied by Cobb-Eastman Co as furniture manufactory. Loss, $17,041. Insurance, $18,000. Originated in the basement. Cause, unknown. No. 28 Otis Street. Owned by Irving & Casson Loss, trifling. Occupied by A. B. & E. L. Shaw as furniture manufactory. Loss, $7,700. Insurance, $62,500. Cause, exposure.

Tuesday, April 7, 4.21 P. M. Box 134.

No. 81 Tremont Street. Occupied by Thomas Vaughn as dwelling. No loss. Cause, wood in stove oven taking fire.

Wednesday, April 8, 9.20 A M Box 51.

No 432 Broadway. Occupied by G. A. Lord as dwelling. Loss, trifling. Originated in the cellar. Cause, dropping of lighted match into rubbish.

Wednesday, April 8, 7 P. M. Box 9.

No. 134 Bridge Street. Owned by Michael Dempsey as dwelling. No loss. Cause, soot in chimney afire.

Thursday, April 9, 9.54 A. M. Box 35.

Norfolk Street. Occupied as St. Mary's Church. Loss, trifling. Originated in the vestry. Cause, drapery around altar ignited by lighted candle.

Saturday, April 11, 6.21 P. M. Box 73.

No. 281 Rindge Avenue. Owned by Margaret McSweeney as unoccupied stable. Loss trifling. Cause, children and matches.

Tuesday, April 14, 5.58 P. M. Box 68.

Richdale Avenue. Owned by H. B. Adams as fence. Loss trifling. Cause, sparks from chimney.

Tuesday, April 14, 7.05 P. M. Box 52.

No. 999 Massachusetts Avenue. Owned by C. A. Cushman as dwelling. No loss. Cause, soot in chimney afire.

Thursday, April 16, 10.35 P. M. Still.

Massachusetts Avenue. Occupied by Charles River Park Association as office. Loss trifling. Cause, explosion of kerosene oil lamp.

Saturday, April 18, 5 P. M. Still.

Portland Street. On dump. Cause, burning rubbish.

Tuesday, April 21, 7.10 A. M. Box 137.

No. 34 Howard Street. Owned by Abraham Trusty as dwelling. No loss. Cause, soot in chimney afire.

Wednesday, April 22, 11.32 A. M. Box 52.

No. 1 Putnam Square. Occupied by Reeves Brothers as apothecary. Loss, $224. Insurance, $2,000. Originated under the counter. Cause, upsetting of a lighted alcohol lamp.

Friday, April 24, 1.49 P M. Box 152.

No. 4 De Wolf Street Occupied by Charles Rogers as dwelling. Loss, $50. No insurance. Originated on second floor. Cause, gas heater igniting a lounge.

Sunday, April 26, 8.59 P. M Box 139.

No. 240 Allston Street. Owned by H. M. Montague. Loss, $15. Insurance, $2,000. Occupied by H. M. Montague as dwelling. Loss, $25. Insurance, $1,000. Originated in the basement in hanging clothes. Cause, matches in coat pocket.

Monday, April 27. 12.20 A M. Box 41.

No. 104 Pleasant Street. Owned by A. A. O'Toole. Loss, $393. Insurance, $2,000. Occupied by A. A. O'Toole as dwelling. Loss, $650. Insurance, $1,000. Cause, supposed by mice and matches.

Thursday, April 30, 3.10 P. M. Box 24.

No. 47 Pilgrim Street. Owned by Richard Conway as dwelling. Loss, $45. Insurance, $4,000. Originated on the roof. Cause, sparks from steam road roller.

Thursday, April 30, 8.10 P. M. Still.

Raymond Street. City stable yard. Cause, burning rubbish on dump endangering fence.

MAY.

Friday, May 1, 2.45 A. M. Box 29.

No. 43 Webster Avenue. Owned by P. F. Rourke. Loss, $33. Insurance, $2,000. Occupied by several families. Loss, trifling. Originated in the cellar. Cause, lighted match thrown into rubbish.

Friday, May 1, 10.35 A. M. Still.

No. 1 Harvard Place. Owned by P. F. O'Rourke as dwelling. Loss, $15. Insurance, $2,000. Cause, fumigating room.

Friday, May 1, 1.31 P. M. Box 216.

No. 133 Main Street. Occupied by Bay State Fuel Co. as shed. Loss, trifling. Originated on the roof. Cause, sparks from chimney.

Friday, May 1, 2.07 P. M. Box 47.

No. 66 Inman Street. Owned by M. E. Murray. Loss, $195. Insurance, $3,000. Occupied by M. E. Murray as dwelling. Loss, $52. Insurance, $1,000. No. 68 Inman Street. Owned by A. C. Burnham. Loss, $247. Insurance, $3,000. Occupied by W. J. Short as dwelling. Loss, $85. Insurance, $1,000. Originated in a partition. Cause, supposed by mice and matches.

Saturday, May 2, 6.29 A. M. Box 29.

No. 131 Webster Avenue. Owned by James Connell as dwelling. No loss. Cause, hot ashes in barrel.

Saturday, May 2, 11.30 A. M. Box 34.

No. 176 Elm Street. Occupied by J. W. Floyd as dwelling. Loss, trifling. Originated in a trunk. Cause, fire from a smoker's pipe.

Saturday, May 2, 1.45 P. M. Still.

Portland Street. Cause, rubbish burning on dump and endangering fence.

Sunday, May 3, 8.50 P. M. Still.

No. 175 River Street. Owned by Marietta Byam as unoccupied dwelling. Loss, $10. Insurance, $1,500. Cause, incendiary.

Thursday, May 7, 10.16 P. M. Box 16.

No. 112 Broadway. Occupied by J. W. Bond, et al., as dwelling. No loss. Originated in a barrel of rags in the cellar. Cause, unknown.

Thursday, May 7, 11.25 P. M. Box 424.

Waverly Street. Owned by Howe Estate as unoccupied shed. No loss. Originated on the roof. Cause, sparks.

Thursday, May 7, 1.45 P. M. Still.

No. 106 Winthrop Street Owned by Delaney & O'Hara as dwelling. No loss. Cause, defective chimney.

Friday, May 8, 11.10 A. M. Box 26.

No. 1 Albany Street. Occupied by Webster heirs as cement manufactory. Loss trifling. Cause, kettle of cement taking fire.

Friday, May 8, 4.08 P. M. Box 16.

No. 29 Harvard Street. Owned by J. M. Ward as unoccupied dwelling. Loss trifling. Originated on outside of building. Cause, set afire by boys.

Friday, May 8, 9.42 P. M. Box 46.

No. 907 Massachusetts Avenue. Occupied by J. Z. Currie as dwelling. Loss, $50. Insurance, $1,500. Originated in billiard room. Cause, falling of a hanging lamp.

Friday, May 8, 11.15 P. M. Still.

No. 28 Brattle Street. Occupied by John Egan as shoe store. No loss. Originated in the cellar. Cause, dropping of lighted paper into rubbish.

Saturday, May 9, 7.28 P. M. Box 158.

Oxford Street. Cause, false alarm given by some malicious person.

Sunday, May 10, 8 P. M. Still.

No. 3 Harvard Place. Occupied by Thomas Swabick as dwelling. No loss. Cause, pot of meat on stove taking fire.

Sunday, May 10, 11.01 P. M. Box 36.

Temple Street. Owned by Young Woman's Christian Association as unoccupied building. Loss, $791. Insurance, $3,000. Cause, incendiary.

Tuesday, May 12, 12.35 A. M. Box 137.

Nos. 22–24 Hews Street. Owned by S. J. Kelley. Loss, $1,575. Insurance-$2,500. No. 22, occupied by Mrs. James Gammon as dwelling. Loss, $90. Insurance, $1,000. No. 24, occupied by W. G. Kinley as dwelling. Loss, $200. No in, surance. Originated in Mrs. Gammon's apartment. Cause, incendiary.

Tuesday, May 12, 1.30 A. M Box 137.

Nos. 22–24 Hews Street. Cause, rekindling of fire.

Tuesday, May 12, 7.40 P. M. Still.

No. 11 Berkeley Street. Occupied by John Allyn as dwelling. No loss. Cause, soot in chimney afire.

Tuesday, May 12, 9.59 P. M. Box 27.

No. 261 Broadway. Owned by E. K. Harding. Loss, $173. Insurance, $3,000. Occupied by A. J. Arnold as dwelling. Loss, $75. Insurance, $500. Cause, oil stove taking fire.

Thursday, May 14, 2.55 P. M. Box 15.

No. 205 Vine Street. Occupied as dwelling. Cause, meat on stove taking fire.

Friday, May 15, 1.57 A. M. Still

No. 19 Western Avenue. Occupied by Nathaniel Williams as tailor. No loss. Cause, lighted cigar stub among rags.

Tuesday, May 19, 11.50 A. M. Box 25.

No. 424 Massachusetts Avenue. Owned by F. A. Kennedy. Loss, $157. Insurance, $4,000. Occupied by W H. Barbour as bicycles, and repairs of. Loss, $1,500. No insurance. Originated in the basement. Cause, gas jet igniting workbench.

Tuesday, May 19, 6.40 P. M. Still.

No. 47 Brattle Street. Occupied by M. H. Bailey as dwelling. Loss, trifling. Cause, gas jet in contact with curtain.

Tuesday, May 19, 9.22 P. M. Box 14.

No. 113 Thorndike Street. Owned by J. P. Squire estate. Loss, $75. Insurance, $1,500. Occupied by Andrew Granville as dwelling. Loss, $54. Insurance, $1,500. Originated on third floor. Cause, explosion of an oil lamp.

Wednesday, May 20, 3 44 P. M. Box 46.

No. 5 Lee Street. Occupied by Freda Flinch as dwelling. No loss. Cause, oil stove taking fire.

Thursday, May 21, 8.20 P. M. Still.

Rear of Lyman Street. Cause, rubbish burning on dump.

Saturday, May 23, 5.20 P. M. Still.

Soldiers' Field, Boston, Brighton District. Occupied as grand stand. Engine Co., No. 1, rendered assistance.

Saturday, May 23, 7.48 P. M. Box 32.

No. 998 Cambridge Street. Occupied by Morris Garfield as dwelling. Loss, trifling. Originated in a lounge. Cause, child and matches

Sunday, May 24, 7 03 P. M. Box 78.

No. 17 Saville Street. Owned by Nazrive Peloquin. Loss, $229. Insurance, $1,800. Occupied by C. J. Marton as dwelling. Loss, trifling. Originated in the attic. Cause, spontaneous combustion in oiled rags.

Monday, May 25, 6 25 P. M. Still.

Rear of Lyman Street. Cause, rubbish burning on dump.

Wednesday, May 27, 11.22 A. M. Box 27.

No. 4 Boardman Street. Occupied by Andrew Hewes as dwelling. Loss, trifling. Originated in a cupboard. Cause, hot poker igniting towel.

Wednesday, May 27, 4 07 P. M. Box 8.

No. 62 First Street Owned and occupied by C. E. Hall & Co. as marble works. Loss, $1,300. Insurance, $1,300. Originated in charcoal dust over engine room. Cause, supposed by spontaneous combustion.

Thursday, May 28, 1.51 P. M. Box 53.

No. 28 Holyoke Street. Occupied by A. M. Teulon as dwelling. No loss. Cause, soot in chimney afire.

Friday, May 29, 4.46–4.51 P M Box 25.

No. 495 Massachusetts Avenue. Owned by A. F. Nottage. Loss, $1,555. Insurance, $5,000. Occupied by Henry Van Dam as fruit store. Loss, $200. No insurance. No. 497, occupied by A. M. Kingman as confectionery. Loss, $25. Insurance, $1,000. No. 507, occupied by Phillips Brothers & Co. as furniture. Loss, $3,450. Insurance, $13,500. No 485, owned by estate of D. A. Buckley. Loss, $85. Insurance. $4,000. Occupied by R. N. Burnes as furniture. Loss, $410. Insurance, $4,000. Originated in fruit store. Cause, unknown.

Sunday, May 31, 11.15 A. M. Still.

No. 1815 Massachusetts Avenue. Owned by M. E. Benson. Loss trifling. Originated in rubbish in yard and endangered fence. Cause, sparks.

JUNE.

Monday, June 1, 10.39 A. M. Box 43.

No. 111 Banks Street. Owned by Norah Brassil. Loss, $731. Insurance, $2,000. Occupied by Norah Brassil as dwelling. Loss, $150. No insurance. Originated in the cellar and extended to roof. Cause, unknown.

Monday, June 1, 10.43 A. M. Box 32.

Nos. 256–258 Elm Street. No. 256, owned by T. A. Gannon as dwelling. Loss, $100. Insurance, $2,000. No. 258, owned by M E Devins as storehouse. Loss, $85. Insurance, $500. Originated in an ash box in the yard. Cause, hot ashes.

Tuesday, June 2, 5.05 A. M. Still.

No. 74 Broadway. Occupied by Broadway Iron Foundry Co. Loss, $32. Insurance, $650. Originated in pattern room. Cause, unknown.

Tuesday, June 2, 7.09 P. M. Box 39.

No. 330 Pearl Street. Owned by Michael Fitzpatrick as stable. Loss, $50. Insurance, $1,000. Originated in rubbish on the outside of building. Cause, unknown.

Wednesday, June 3, 6.28 P. M. Box 24.

No. 166 Brookline Street. Owned by U. A. Ridley as dwelling. Loss, trifling. Originated on the piazza in rags. Cause, children and matches.

Wednesday, June 3, 8.29 P. M. Box 165.

No. 32 Frost street. Occupied by F. B. Colby as dwelling. Loss trifling. Cause, gas jet igniting curtain.

Wednesday, June 3, 10.30 P. M. Box 178.

No. 287 Walden Street. Owned by New England Brick Co. Loss, $6,300. Insurance, $11,000. Occupied by New England Brick Co. as brick manufactory. Loss, $7,800. Insurance, $8,500. Originated in boiler room. Cause, supposed by throwing a lighted match into oiled waste.

Thursday, June 4, 2.20 A. M. Box 54.

Quincy Street, college yard. Originated in a pile of pine tree tops which had been used for decorating. Cause, set afire.

Thursday, June 4, 3.16 A. M. Box 178.

No. 287 Walden Street. Owned by New England Brick Co. as wood. Loss, trifling. Cause, sparks from a burning building.

Thursday, June 4, 8.16 P. M. Box 29.

No. 62 Hampshire Street. Owned by H. F. Sparrow Co. as confectioners. Loss trifling. Originated in a staging on inside of a chimney.

Friday, June 5, 4.33 P. M. Box 14.

No. 151 Otis Street. Owned by M. E. Lyons as dwelling. Loss, $10. Insurance, $1,800. Originated on the roof. Cause, sparks.

Friday, June 5, 6.17 P. M. Box 64.

No. 21 Chauncy Street. Owned by Arthur Gilman. Loss, $600. Insurance, $7,000. Occupied by several parties as dormitory. Loss, $300. No insurance. Originated in the attic. Cause, supposed by mice and matches.

Friday, June 5, 7.47 P. M. Box 15.

No. 211 Vine Street. Occupied as dwelling. Cause, smoke mistaken for fire.

Friday, June 5, 7.57 P. M. Box 36.

No. 37 Prospect Street. Owned by J. M. Robbins as dwelling. Loss, $30. Insurance, $3,500. Originated on 2nd floor in hall. Cause, explosion of hanging lamp.

Sunday, June 7, 11.45 A. M. Box 34.

No. 141 Hampshire Street. Occupied as confectioner Cause, smoke mistaken for fire.

Sunday, June 7, 2.14 P. M. Box 8.

No. 62 First Street. Owned and occupied by C. E. Hall & Co. as marble works. Loss, $2,300. Insurance, $2,300. Originated in boiler room. Cause, spontaneous combustion.

Sunday, June 7, 5.38 P. M. Box 32.

Foot of Winsor Street, in Somerville. Alarm needless.

Tuesday, June 9, 4.15 P. M. Box 24.

No. 143 Erie Street. Cause, flames from a roofer's furnace mistaken for fire.

Friday, June 12, 1.40 A. M. Box 59.

College Yard. In Massachusetts Hall Cause, burning red fire.

Friday, June 12, 10.21 A. M. Box 32.

No. 1132 Cambridge Street Owned by Mary Mahan. Loss; $50. Insurance, $3,500. Occupied by Allen, Totman Co. as hardware. Loss, $72. Insurance, $4,000. Originated in the cellar. Cause, unknown.

Saturday, June 13, 10.59 P. M. Box 162.

No. 25 Willard Street Owned by Jeremiah Sullivan. Loss, $365. Insurance, $800. Occupied by Jeremiah Sullivan as stable. Loss, $85. Insurance, $1,700. Originated in the hayloft. Cause, unknown.

Monday, June 15, 7 08 A. M. Box 15.

No. 119 Fourth Street Owned by R. J. McKelleget as dwelling. Loss, $175. Insurance, $1,500. No loss on contents. Originated in the attic. Cause, unknown.

Monday, June 15, 9.45 A. M. Still.

No. 129 Inman Street. Owned by C. H. Montague as shed. No loss. Originated in rubbish. Cause, children and matches.

Tuesday, June 16, 6.50 A. M. Box 271.

No. 107 Dudley Street. Occupied by Thomas Cormier as grocery. No loss. Originated in the cellar. Cause, defective chimney.

Tuesday, June 16, 4.24 P. M. Box 139.

No. 113 Magazine Street. Occupied by A. W. Elson as manufacturer of photograph plates. No loss. Cause, explosion of a bottle of benzine.

Wednesday, June 17, 9.08 P. M. Box 113.

No. 34 Spring Street. Cause, smoke from a chimney mistaken for fire.

Thursday, June 18, 11.54 A. M. Box 134.

No. 73 Tremont Street. Occupied by Frank Taylor as dwelling. Loss, trifling. Cause, pot of meat on stove taking fire.

Thursday, June 18, 1.20 P. M. Still.

No. 20 Thorndike Street. Occupied by H. M. Sawyer & Son as oil clothes manufactory. Cause, accidental automatic alarm.

Monday, June 29, 2.27 A. M. Box 12.

No. 227 Cambridge Street. Owned by G. W. Dearborn. Loss, $500. Insurance, $5,000. Occupied by H. N Hovey & Co. as grocery. Loss, $550. Insurance, $4,500. Cause, mice and matches.

Monday, June 29, 7.45 A. M. Box 17.

No. 108 Hastings Street. Owned by William Holden. Loss, $25. Insurance, $1,500. Occupied by Anna Powell as dwelling. Loss, $68. Insurance, $400. Originated in a closet on first floor. Cause, unknown.

Monday, June 29, 8.16 P. M. Still.

No 32 Brookline Street. Occupied by Simon Harris as dwelling. Loss, trifling Cause, explosion of a lighted oil lamp.

JULY.

Thursday, July 2, 9.21 A. M. Box 9.

No. 81 Cambridge Street. Owned by P. F. O'Brien. Loss, $55 Insurance, $1,000. Occupied by John Deus as dwelling. Loss, $50. No insurance. Originated in a clothes closet. Cause, child and matches.

Friday, July 3, 8.05 A. M. Still.

University Road. Occupied by Boston Elevated Railway Co. as blacksmith shop. Loss, trifling. Originated on the roof. Cause, sparks.

Friday, July 3, 8.40 A. M. Still.

No. 22 Garden Street. Occupied by Mrs. H. F. Kendall as dwelling. No loss. Cause, soot in chimney afire.

Saturday, July 4, 3.17 A M. Box 215.

Spring Street. Cause, false alarm given by some malicious person.

Saturday, July 4, 3.26 A. M. Box 43.

Banks Street. Cause, false alarm given by some malicious person.

Saturday, July 4, 5.53 A. M Box 36.

No. 30 Essex Street. Owned by H. O. Cushman. Loss, $1,200. Insurance, $3,500. Occupied by M. E. Day as dwelling. Loss, $345. Insurance, $2,000. Originated on roof of L. Cause, firecrackers.

Saturday, July 4, 6.03 A. M. Box 178.

No. 57 Sherman Street. Owned by New England Brick Co. as dwelling. Loss, trifling. Originated on the roof. Cause, firecrackers.

Saturday, July 4, 12.51 P. M. Box 35.

No. 15 Worcester Street. Owned by W. W. Mercer as dwelling. Loss, trifling. Originated on the roof. Cause, firecrackers.

Saturday, July 4, 3.24 P. M. Box 32.

Foot of Winsor Street. Owned by Middlesex Paper Co. as stable. Loss, trifling. Originated on the roof Cause, firecrackers.

Sunday, July 5, 7.18 P. M. Box 32.

No. 323 Webster Avenue. Originated in an old mattress in the yard. Cause, children and matches.

Sunday, July 5, 9 29 P. M. Box 32.

No. 1098 Cambridge Street. Owned by Patrick Ferry. Loss, $306. Insurance, $1,000. Occupied by Hyman Pill & Brother as hardware. Loss, $1.500. Insurance, $4,000. Originated at foot of stairs in the cellar. Cause, unknown.

Wednesday, July 8, 3.48 P. M. Box 152.

No. 1286 Massachusetts Avenue. Occupied by Notman Photographic Co. Cause, smoke from flashlight in taking photograph mistaken for fire.

Thursday, July 9, 2.13 A. M. Box 17.

No. 86 Hastings Street. Owned by Robert Carter as unoccupied dwelling. Loss, $144. Insurance, $800. Originated in the cellar, and in an attic chamber. Cause, incendiary.

Thursday, July 9, 11.25 A. M. Still.

No. 36 Harvard Street. Owned by Thomas Keough as stable. No loss. Originated in rubbish under the floor. Cause, set afire by boys.

Tuesday, July 14, 7.55 P. M. Box 131.

No. 19 Ninth Street. Occupied by John Bradley as dwelling. Loss, trifling. Originated in netting in window. Cause, child and matches.

Thursday, July 16, 8 10 P. M. Still.

Albany Street. Cause, old paper and rubbish on vacant land on fire, and endangering fence.

Friday, July 17, 4.09 P. M. Box 26.

No. 371 Main Street. Rubbish box in yard. Cause, set afire by children.

Saturday, July 18, 11.33 A. M. Box 137.

No. 80 Howard Street. Owned by S. J. Kelley. Loss, $53. Insurance, $3,000. Occupied by John Hagarty as dwelling. Loss, trifling. Originated in woodbox near stove. Cause, child and matches.

Sunday, July 19, 7.03 P. M. Box 145.

No. 32 Bay Street. Occupied by Royce Highley as dwelling. Loss, $12. Insurance, $500. Originated in a bed. Cause, child and matches.

Thursday, July 23, 7.35 P. M. Box 8.

No. 20 Thorndike Street. Occupied by H. M. Sawyer & Son as oil clothes factory. Loss, $475. Insurance, $475. Originated in a drying room. Cause, overheated.

Friday, July 24, 3.46 P. M. Box 71.

No. 16 Clarendon Avenue. Occupied by John Morandus as dwelling. Loss, trifling. Originated in an attic. Cause, unknown.

Friday, July 24, 8.03 P. M. Box 26.

Osborn Street. Occupied by Samuel Adelman as junk shop. Loss, trifling. Originated in rags. Cause, supposed by spontaneous combustion.

Friday, July 24, 9.30 P. M. Still.

No. 4 Harvard Place. Occupied by Ellen Lyons as dwelling. Loss, trifling. Cause, explosion of lighted oil lamp.

Saturday, July 25, 11.35 A. M. Box 15.

No. 106 Fourth Street. Owned by J. O'Hearn as dwelling. Loss, $580. Insurance, $1,500. Originated in the roof. Cause, supposed from defective chimney.

Monday, July 27, 5.08 P. M. Box 28.

No. 30 Davis Street. Owned by M. J. Walsh as unoccupied dwelling. Loss, $90. Insurance, $1,500. Originated on the roof. Cause, sparks from a chimney.

Tuesday, July 28, 3.11 P. M. Box 31.

No. 113 Willow Street. Owned by Timothy Desmond as dwelling. Loss, trifling. Originated on the roof. Cause, sparks from a chimney.

Wednesday, July 29, 9 A. M. Still.

No. 20 Thorndike Street. Occupied by H. M. Sawyer & Son as oil clothes factory. Cause, accidental automatic alarm.

Friday, July 31, 2 30 A. M. Still.

No. 335 Putnam Avenue. Owned by Daniel Bartlett as unoccupied building. No loss. Cause, incendiary.

AUGUST.

Saturday, Aug. 1, 12.20 A. M. Still.

Harvard Bridge. Cause, planking ignited by electric wires.

Saturday, Aug. 1, 3.48 P. M. Box 14.

No. 139 Gore Street. Occupied by Daniel Reardon as dwelling. Loss trifling. Originated in a closet. Cause, mice and matches.

Sunday, Aug. 2, 7.24 A. M. Box 15.

No. 199 Charles Street. Owned by Jane Gallagher. Loss, $154. Insurance, $900. Occupied by John Coombs as dwelling. Loss, $50. No insurance. Originated in a bedroom. Cause, child and matches.

Sunday, Aug. 2, 12.47 P M. Box 32.

No. 1056 Cambridge Street. Owned by Union Trust Co. as dwelling. Loss, trifling. Originated in the cellar. Cause, unknown.

Monday, Aug. 3, 9.50 A. M. Box 31.

No. 152 Willow Street. Owned by Henry Keshenofsky as dwelling. Loss, trifling. Originated in rubbish barrel under stairs. Cause, set afire by children.

Monday, Aug. 3, 11.33 A. M. Box 74.

No. 13 Bolton Street. Owned by Ellen Vaughan as unoccupied dwelling. Loss, $147. Insurance, $500. Originated under the stairs on first floor. Cause, incendiary.

Tuesday, Aug. 4, 10.14 A. M. Box 41.

No. 111 Pleasant Street Occupied by T. F. Forbes as dwelling. Loss, trifling. Originated in bed clothes on second floor. Cause, unknown.

Wednesday, Aug. 5, 3.28 A. M. Still.

Harvard Bridge. Originated in timbers. Cause, electric wires.

Wednesday, Aug. 12, 12.55 A. M. Box 71.

No. 2525 Massachusetts Avenue. Owned by Ferdinand Fischer. Loss, $240. Insurance, $2,000. Occupied by Parker Brothers as grocery. Loss, $750. Insurance, $1,500 Originated under a counter. Cause, unknown.

Friday, Aug. 14, 10 39 A. M. Box 41.

No. 174 Pleasant Street. Owned by H. M. Alexanderson as dwelling. Loss, trifling. Originated on the roof. Cause, sparks from a chimney.

Saturday, Aug. 15, 5 P. M. Still.

Parnell Street. Rubbish on dump burning.

Saturday, Aug. 15, 9.50 P. M. Still.

Ninth Street. Rubbish on dump burning.

Monday, Aug. 17, 9 03 A. M. Box 27.

No. 163 Hastings Street. Cause, smoke mistaken for fire.

Tuesday, Aug. 18, 9 A. M. Still.

No. 60 Berkshire Street. Occupied by Robert Bussey as dwelling. Loss, trifling. Originated on third floor. Cause, child and matches.

Friday, Aug. 21, 10 53 A. M. Box 9.

No. 105 Cambridge Street. No loss. Cause, kettle of tar taking fire.

Thursday, Aug. 27, 7.56 P. M. Box 59.

No. 1436 Massachusetts Avenue. Owned by J. W. Brine as an awning. Loss, trifling. Cause, fire dropping from an open window.

Sunday, Aug. 30, 1.18 A. M. Box 29.

Webster Avenue. Cause, false alarm given by some malicious person.

SEPTEMBER

Monday, Sept. 7, 1.06 A. M. Box 216.

No. 244 First Street. Owned by Coleman Brothers as soft coal. Loss, trifling. Cause, spontaneous combustion.

Wednesday, Sept. 9, 6.55 P. M. Box 131.

Ninth Street. Freight yard. Owned by Boston & Albany Railroad Co. as freight car. Loss, trifling. Occupied by George G. Page Box Co. as lumber. Loss, $140. Insurance, $190. Cause, set afire by boys.

Sunday, Sept 13, 3.05 P. M. Box 14.

No. 27 Sixth Street. Owned by R. J. McKelleget as dwelling. Loss, $60. Insurance, $1,000. Originated in rubbish in the yard. Cause, set afire by children.

Wednesday, Sept. 16, 10 59 P. M. Box 35.

Broadway. Originated in a tree. Cause, electric wires.

Friday, Sept. 18, 8.28 A. M. Box 34.

No. 178 Elm Street. Owned by Mary Martin as dwelling. Loss, $35. Insurance, $1,000. Cause, paper in funnel hole of chimney taking fire and dropping onto floor.

Friday, Sept. 18, 10 P. M. Box 115.

No. 265 Third Street. Occupied by Geo. F. Blake Mfg. Co. as foundry. Loss, trifling. Originated in burlap. Cause, sparks.

Saturday, Sept. 19, 12 45 P. M. Still.

No. 51 Brookline Street. Occupied by J. W. Du Cett as dwelling. Loss, $51. Insurance, $600. Originated in a bedroom. Cause, supposed incendiary.

Saturday, Sept. 19, 8.30 P. M. Box 442.

No. 20 Blackstone Street. Occupied by Houghton, Mifflin & Co. as storehouse. Loss, $1,000. Insurance, $1,000. Cause, supposed by spontaneous combustion.

Saturday, Sept. 19, 9.06 P. M. Box 26.

Massachusetts Avenue. Cause, a box burning in the street. Alarm needless.

Sunday, Sept. 20, 5.25 P. M. Box 148.

No. 81 Highland Avenue. Occupied by R. S. McArthur as dwelling. No loss. Originated in the attic. Cause, boys and matches.

Monday, Sept. 21, 6.05 P. M. Still.

No. 62 Hampshire Street. Occupied by H. F. Sparrow & Co. as confectioners. Cause, accidental automatic alarm.

Tuesday, Sept. 22, 1.45 P. M. Still.

No. 4 Murray Street. Occupied by G. E. Gardner as dwelling. No loss. Originated in the attic. Cause, children and matches.

Tuesday, Sept. 22, 2.50 P. M. Still.

No. 4 Harvard Place. Occupied by James Mahan as dwelling. No loss. Originated in rubbish in the cellar. Cause, children and matches.

Thursday, Sept. 24, 8 02 A. M. Box 24.

No. 19 Decatur Street. Owned by John Dolan. Loss, $800. Insurance, $800. Occupied by Richard Fennick as stable. Loss, $500. No insurance. Cause, unknown. No. 28 Lopez Street. Owned by Michael Carr as soap works. Loss, $100. No insurance. Cause, exposure.

Thursday, Sept. 24, 6.35 P. M. Still.

No. 291 Cambridge Street. Occupied by John Galligan as dwelling. Loss, trifling. Originated in a lounge. Cause, child and matches.

Friday, Sept. 25, 5.20 A. M. Box 59.

No. 38 Boylston Street Owned by Read estate. Loss, $350. Insurance, $5,000. Occupied by E. C. Whitney as varietv store. Loss, $325. Insurance, $550. Originated in paper bags under a counter. Cause, unknown.

Friday, Sept. 25, 7.45 P. M. Still.

Willow Street. Cause, rubbish burning on vacant lot.

Saturday, Sept. 26, 12.26 P. M. Box 12.

No. 201 Bridge Street. Cause, boys tampering with auxilary alarm in the building.

Saturday, Sept. 26, 11.43 P. M. Box 29.

No. 266 Winsor Street. Occupied by C. W. Hall as dwelling. No loss. Originated under the L. Cause, unknown.

Tuesday, Sept. 29, 11.38 A. M. Box 134.

No. 348 Norfolk Street. Occupied by Jeremiah Murphy as dwelling. No loss. Cause, oil stove taking fire.

Wednesday, Sept. 30, 11.50 A. M. Box 152.

No. 1310 Massachusetts Avenue. Occupied by Oak Grove Creamery Co. No loss. Cause, fat on stove taking fire.

OCTOBER.

Thursday. Oct. 1, 12 55 A. M. Box 131.

No. 748 Cambridge Street. Owned by G. H. Abbott. Loss, $87. Insurance, $5,000. Occupied by J. H. Cole as dwelling Loss, $100. Insurance, $400. Originated in a lounge. Cause, sparks from a pipe.

Thursday, Oct. 1, 11.40 A. M. Box 29.

No. 55 Plymouth Street. Occupied by John Walker as dwelling. Loss, trifling. Cause, pot of meat on stove taking fire.

Friday, Oct. 2, 9.30 A. M. Still.

No. 20 Thorndike Street Occupied by H. M. Sawyer & Son as oil clothes manufactory. Cause, accidental automatic alarm.

Saturday, Oct 3, 8.01 A. M. Box 112.

North Street. Owned by Boston Elevated Railway Co. as soft coal. Loss, $——. Insurance, $——. Cause, spontaneous combustion.

Saturday, Oct. 3, 5.57 P. M Box 112.

North Street. Cause, rekindling of coal fire.

Monday, Oct. 5, 10.21 P. M. Box 62.

No. 10 Hilliard Street. Occupied by Richard Baldwin as dwelling. Loss, trifling. Cause, overturning of a lighted oil lamp.

Tuesday, Oct. 6, 8.04 P. M. Box 16.

Sixth Street. Occupied by G. W. Hayden as brass foundry. Loss, trifling. Originated in the floor. Cause, hot metal.

Thursday, Oct. 8, 8.42 P. M. Box 71.

No. 2612 Massachusetts Avenue. Owned by J. E. Fitzgerald. Loss, $1,000. Insurance, $2,000. Occupied by J. E. Fitzgerald as carriage manufactory. Loss, $1,900. Insurance, $3,000 Cause, supposed by electric wires.

Wednesday, Oct. 14, 11.20 A. M. Still.

No. 349 Green Street. Owned by Eliza Pike as dwelling. No loss. Cause, soot in the chimney afire

Thursday, Oct. 15, 12.15 P M. Box 149.

No. 84 Kirkland Street. Occupied by C. W. Herbst as grocery. Loss, trifling. Cause, overturning of a lighted oil lamp.

Friday, Oct. 16, 9.30 A. M. Still.

No. 42 Bigelow Street. Occupied by Carl Leeson as dwelling. Loss, $25. Insurance, none. Originated in a couch. Cause, child and matches.

Saturday, Oct. 17, 11.54 A. M. Box 51.

No. 1671 Cambridge Street. Occupied as dwelling. Cause, smoke mistaken for fire.

Saturday, Oct. 17, 3.21 P. M. Box 65.

No. 31 Hudson Street. Owned by John McDonald. Loss, $124. Insurance, $2,500. Occupied by John McDonald as dwelling. Loss, $25. No insurance. Cause, child and matches.

Sunday, Oct. 18, 1.46 A. M. Box 25.

No. 8 Pine Street. Owned by Joseph Goodrich Loss, $480. Insurance, $3,000. Occupied by Joseph Goodrich as dwelling. Loss $440. Insurance, $1,500. Cause, unknown.

Sunday, Oct. 18, 6.06 P. M. Box 74.

No. 70 Middlesex Street. Owned by W. B. Stearns. Loss, $790. Insurance, $2,000. Occupied by Alfred Trembly as dwelling. Loss, $454. Insurance, $795. Occupied by Uldrick Hamel as dwelling. Loss, $145. Insurance, $800. Originated on second floor. Cause, overturning of a lighted oil lamp.

Monday, Oct. 19, 5 50 P. M. Box 26.

No. 713 Main Street. Occupied by several tenants as dwelling. No loss. Originated in a rubbish box in yard. Cause, children and matches.

Tuesday, Oct. 20, 6.47 A. M. Box 42.

No. 311 River Street. Owned by W. B. Chamberlain Loss, $53. Insurance, $2,000. Occupied by Lui Paris as barber. Loss trifling. Originated in a water-closet. Cause, dropping of lighted match into paper.

Tuesday, Oct 20, 8.45 P. M. Box 27.

No. 151 Clark Street. Owned by heirs of W. H. Luke. Loss, $100. Insurance $1,500. Occupied by J. E. Dickinson as dwelling. Loss, $100. No insurance. Originated in clothes closet. Cause, unknown.

Wednesday, Oct. 21, 9.27 A. M. Box 131.

No. 9 Warren Street. Occupied by Patrick Carroll as dwelling. Loss, trifling. Originated in clothes closet. Cause, child and matches.

Thursday, Oct 22, 8 15 A. M. Still.

No. 66 Winthrop Street. Owned by Digamma Club. No loss. Cause, soot in chimney afire.

Thursday, Oct. 22, 6.37 P. M. Box 32.

No. 250 Webster Avenue. Occupied by Austin Forrant as dwelling. Loss, trifling. Cause, explosion of hanging lamp in the hall.

Saturday, Oct. 24, 2.58 P M. Box 215.

No. 181 Spring Street. Occupied by Daniel Scully as dwelling. No loss. Cause, pot of meat on stove taking fire.

Thursday, Oct. 29, 4.40 P. M. Still.

No. 20 Thorndike Street Occupied by H. M. Sawyer & Son as oil clothes manufactory. Cause, accidental automatic alarm.

Thursday, Oct. 29, 9.10 P M. Still.

Linder Street. Cause, pile of leaves afire and endangering fence

Friday, Oct. 30, 1 28 P. M. Box 7.

Prison Point Street. Cause, portable tar kettle afire.

Saturday, Oct. 31, 12 56 A. M. Box 131.

Freight yard, Ninth Street. Owned by Boston & Albany Railroad Co. as freight car. Loss, $300. Insurance, $300. Cause, set afire.

Saturday, Oct 31, 5.56 P. M. Box 32.

No. 282 Webster Avenue. Occupied by Isaac Shafer as dwelling. Loss, trifling. Cause, child set lounge afire with lighted candle.

NOVEMBER.

Sunday, Nov. 1, 1 A. M. Box 32.

No. 1007 Cambridge Street. Owned and occupied by Camille White as junk. No loss. Originated in a bale of old rope. Cause, spontaneous combustion.

Sunday, Nov. 1, 2.29 P. M. Box 73.

No. 25 Jackson Street. Occupied by E. G. Bretton as dwelling. No loss. Cause, meat on stove taking fire.

Sunday, Nov. 1, 10.20 P. M. Still.

No. 72 Mt. Auburn Street. Occupied as club house. No loss. Cause, soot in chimney afire.

Monday, Nov. 2, 7.10 P. M Box 131.

No. 40 Warren Street. Occupied by J. M. Devanney as dwelling. Loss, trifling Originated in a lounge. Cause, child and matches.

Wednesday, Nov. 4, 3.55 P. M. Still.

No. 3 Squires Court. Occupied by Patrick Brennan as dwelling. Loss, trifling. Originated among clothes in the attic. Cause, unknown.

Sunday, Nov. 8, 8 37 A. M. Still.

No. 83 School Street. Owned by P. J. Lally. Loss, $15. Insurance, $5,000. Occupied by Daniel McIver as dwelling Loss, $84. Insurance, $500. Cause, spark dropping from chimney flue and igniting lounge.

Tuesday, Nov 10, 12.59 A. M. Box 114.

Fire in Somerville. In yard of J. P. Squire & Co.

Friday, Nov. 13, 6.23 P. M. Box 14.

Sixth Street. Cause, false alarm, given by some malicious person.

Sunday, Nov. 15, 10 40 A. M. Still.

No. 10 Palmer Street. Occupied by Charles De Young as repairs of automobiles. Originated in rubbish in the cellar. Cause, sparks from furnace.

Thursday, Nov. 19, 1.51 P. M. Box 26.

No 81 State Street. Owned by Charles VanBuskirk. Loss, $30. Insurance, $600. Occupied by Charles VanBuskirk as carriage painter. No loss. Cause, defective chimney

Saturday, Nov. 21, 1.31 A. M. Box 25.

No. 524 Massachusetts Avenue. Owned by A. P. Morse. Loss, $550. Insurance, $1,000. Occupied by Peter Rumbos as fruit. Loss, $100. No insurance. Occupied by Catherine McMahon as dwelling. Loss, $150. No insurance. Originated in the cellar. Cause, gas heater used for ripening bananas igniting floor.

Saturday, Nov. 21, 12.05 P. M. Box 152.

Harvard Street. Owned by Old Cambridge Baptist Society. Loss, $1,613. Insurance, $58,000. Occupied as church. Loss, $710. Insurance, $12,000. Originated in the floor. Cause, overheated furnace pipe

Saturday, Nov. 21, 3.23 P. M. Box 8.

First Street. Owned by Irving & Casson as boiler room. No loss. Cause, sparks from furnace igniting shavings.

Saturday, Nov. 21, 8.50 P. M. Still.

No. 27 Harvard Street. Owned by P. F. O'Rourke. Loss, $30. Insurance, $2,000. Occupied by James Cavanaugh as dwelling. Loss, $30. Insurance, $500. Cause, explosion of a lighted oil lamp.

Monday, Nov. 23, 7.49 P. M. Box 12.

No. 192 Bridge Street. Owned by E. A. Seeley as dwelling. No loss. Cause, soot in chimney afire.

Wednesday, Nov. 25, 3.33 P. M. Box 32.

No. 497 Winsor Street. Occupied by Timothy O'Connell as dwelling No loss. Cause, stove cloths taking fire.

Thursday, Nov. 26, 10,22 A. M. Box 26.

No. 27 School Street. Owned by E. D. Brooks as unoccupied tenement. Loss, trifling. Cause, sparks dropping from open chimney flue and igniting floor.

Friday, Nov. 27, 11.36 P. M. Box 25.

No. 485 Massachusetts Avenue. Owned by D. A. Buckley estate. Loss, $55. Insurance, $4,000. Occupied by R. N. Burnes as furniture. Loss, $52. Insurance, $7,000. Originated near chimney. Cause, supposed by mice and matches.

Saturday, Nov. 28, 6.38 A. M. Box 168.

No. 1998 Massachusetts Avenue. Owned by Brooks & Conley. Loss, $165. Insurance, $8,000. Occupied by S. S. Young as grocery. Loss, trifling. Originated in barrel of sawdust on outside of building Cause, supposed by the dropping of a lighted match.

Saturday, Nov. 28, 7.31 P. M. Box 7.

Prison Point Street. Freight yard. Cause, lighted gasoline torch on top of car mistaken for a fire.

Sunday, Nov. 29, 1 03--1.09 A. M Box 32.

No. 1007 Cambridge Street. Owned by Camille White. Loss, $1,500. Insurance, $1,500. Occupied by Camille White as junk. Loss, $2,240. Insurance, $3,000. Cause, supposed of incendiary origin.

No. 416 Columbia Street. Owned by J. P. Squire estate as dwelling. Loss, $61. Insurance $2,500. Cause, exposure. No. 513 Winsor Place. Owned by J. P. Squire estate as dwelling. Loss, $195. Insurance, $1,000. Cause, exposure.

Sunday, Nov. 29, 2.32 P. M. Box 271.

No. 16 Cameron Street. Owned by Charles Miller as dwellings. No loss. Originated in the bathroom. Cause, thawing out water pipe.

Monday, Nov. 30, 1.25 A. M. Box 36.

Nos. 712–714 Massachusetts Avenue. Owned by J. H. & J. P. Thayer. Loss, $500. Insurance, $1,500. Occupied by Phipps Brothers as locksmiths. Loss, $734. Insurance, $1,000. Occupied by Carl D. Omes as harness maker. Loss, $182. Insurance, $500. Originated around the chimney. Cause, supposed by mice and matches.

Monday, Nov. 30, 9.52 P. M. Box 23

No. 23 Lopez Street. Owned by L. W. Page. Loss, trifling. Occupied by James Roberts as dwelling. Loss, $85. Insurance, $500. Cause, explosion of oil lamp.

REPORT OF THE BOARD OF HEALTH

To the Honorable, the City Council:—

In accordance with the requirements of the Revised Laws, we herewith submit our annual report for the year ending December 31, 1903.

The list of nuisances abated is herewith annexed.

In order to prevent as far as possible the spread of the disease known as consumption, the Board adopted the following regulation, March 11:—

A physician called upon to attend a person having consumption shall immediately notify the Board of Health in regard thereto.

After such notice has been received an inspector of the Board shall make an examination of the premises where such person is confined and report thereon.

In each case the inspector shall cause a copy of the circular pertaining to consumption to be de ivered at such premises.

Where there is a death from consumption, or a removal of a person sick with such disease, an agent of the Board shall thoroughly fumigate the premises and property therein, in such manner as the Medical Inspector shall direct.

A person who violates any of the foregoing regulations, or who prevents an inspector or agent of the Board from carrying out the same, shall forfeit a sum not to exceed fifty (50) dollars.

A True Record. Adopted March 11, 1903.

Attest: JAMES B. SOPER,
Clerk.

The following circular on consumption was prepared by our Medical Inspector, Edwin Farnham, M. D., under the direction of the Board:—

CIRCULAR ON CONSUMPTION.

Consumption of the lungs, called also Pulmonary Tuberculosis and Phthisis, is an infectious disease; that is, a disease which one person can catch from another person

This disease is caused by the tubercle bacillus or germ which, in the great majority of cases, enters the human body through the air passages, and becomes lodged in the lungs.

As the disease progresses cough begins, and in the matter which is coughed up and spit out these germs are present in large numbers.

While the spit is moist the germs are not set free, but when it is dried they are freed, and being carried about by the air they may be breathed in by other persons, and the disease started in them. It is, therefore, of the utmost importance that the spit should not be allowed to dry, but should be destroyed while still moist, or removed from the neighborhood of human beings.

For this purpose the person having the disease should, while at home, spit into a cup or other vessel one-third full of water, which cup or vessel should be emptied down the water closet two or more times daily, and after each emptying thoroughly washed out with a five per cent. solution of carbolic acid, and then

washed again in boiling water. The spit may also be received on pieces of old cloth, which should be burned immediately.

When absent from home one of the various spit cups, of which there are several styles, may be used, or pieces of old cloth, which should be carried in some waterproof receptacle, may be used to spit into. These cloths should afterwards be burned, and the spit cups and waterproof receptacles cleansed as before described. Great care should be taken to prevent the hands, face or clothing becoming soiled with spit

The breath of a consumptive person, rarely, if ever, contains the germs that cause the disease. The small particles of saliva thrown out in coughing, sneezing, laughing, etc , may, however, do so.

A consumptive person should not sleep in the same room with another person, nor should the consumptive be kissed by others.

The room occupied by a consumptive should contain the smallest possible amount of furniture, carpets, curtains and other articles capable of affording a harbor for dust. It should be kept scrupulously clean, and the furniture, floor, walls, etc., should not be dusted nor swept, but should be wiped with damp cloths, which cloths should afterwards be burned.

The consumptive's bed linen, night dresses and clothing should be washed separately in boiling water, not with the family washing, and should on no account be sent to a public laundry.

All plates, cups, spoons, knives, forks, etc., should be boiled in water after being used.

Nature's most powerful preventives of, and restorers to health in this disease are pure air and sunlight, and of both the sick person should have the greatest amount obtainable.

Consumption is a disease both preventable, and in many cases, curable. Strict attention to proper modes of living will do much to ensure both prevention and cure

For the purpose of improving the sanitary condition of barber shops, the Board on May 11th adopted the following regulation : —

The place of business, together with all the furniture, shall be kept at all times in a cleanly condition.

Mugs, shaving brushes and razors shall be sterilized by immersion in boiling water after every separate use thereof.

A separate, clean towel shall be used for each person.

Alum or other material used to stop the flow of blood shall be so used only in powdered form and applied on a towel.

The use of powder-puffs is prohibited.

The use of sponges is prohibited

Every barber shop shall be provided with running hot and cold water.

No person shall be allowed to use any barber shop as a dormitory.

Every barber shall cleanse his hands thoroughly immediately after serving each customer.

These Regulations shall be posted in a conspicuous place in every barber shop.

Whoever violates any of the foregoing Regulations shall forfeit a sum not to exceed one hundred (100) dollars.

A True Record. Adopted March 11, 1903.

Attest: JAMES B. SOPER,
Clerk.

To secure comfort and prevent as far as possible the spread of disease in street cars, the Board on March 25th adopted the following regulation :—

Every street railway passenger car (closed) operated in Cambridge shall, while so operated, be properly ventilated.

Such cars shall be thoroughly aired at the end of each round trip.

Every such car shall be thoroughly cleansed at the end of each day's service and shall be disinfected once each week

These Regulations shall be posted in a conspicuous place in every such car and in all car houses in Cambridge

Whoever violates any of the foregoing Regulations shall forfeit a sum not to exceed one hundred (100) dollars.

A True Record. Adopted March 25, 1903.

Attest: JAMES B. SOPER,
Clerk.

The following circular on the care and feeding of infants during hot weather, etc., was adopted by the Board July 29th. It was prepared by Medical Inspector Edwin Farnham, M. D., under the direction of the Board: —

RULES FOR THE CARE AND FEEDING OF INFANTS DURING HOT WEATHER.

During the hot summer months much of the sickness occurring among young children is caused by diarrhœal diseases. This is especially the case among bottle-fed infants.

All the surroundings of the infant should be kept scrupulously clean, and the house should be well aired Do not keep dirty diapers or clothes in the same room with the infant. Do not be afraid to have the windows open. Cleanliness and pure air are most essential to preservation of health. The child should be out of doors except during the hottest part of the day

The child should be bathed every day, and if it is feeble sponge it with luke-warm water once or twice daily.

The child should be clothed loosely, and no tight bandages allowed to press upon it. At night it should wear a garment not used during the day, and all clothing should be well aired after being taken off

The child should sleep by itself, and be put to bed early and at the same time every night.

The child is often thirsty, and should have pure water to drink, which it is better to give in small quantity frequently than in large amount at long intervals. Do not give the child tea, coffee, nor any other drink except pure, cool water.

The mother should nurse her infant when able to do so, and should not attempt to wean it during the heat of summer unless directed to do so by the family physician. Never give the infant medicine of any kind unless it is prescribed by your physician.

In the case of bottle-fed infants the rules given below for the care of the bottles and nipples and for the care and preparation of the milk should be followed.

Put the milk in a clean, closed can or receptacle as soon as it is received, and keep it in a cool, clean, well-ventilated place. In hot weather sterilize the milk as soon as received.

Care of the Bottles and Nipples.

Use a nursing bottle with a black rubber nipple. Do not use nursing bottles with rubber tubes, as it is difficult to keep the tubes clean.

Cleanse the bottle and nipple every time they are used in the following way: Wash the bottle in boiling water, and soak the nipple in water to which a little soda has been added. Then rinse the nipple to wash away all traces of the soda. While the bottle and nipple are not being used leave them soaking in cold water.

How to Sterilize Milk.

The articles needed are: —

1. A sterilizer It can be made from a tin pail about ten inches deep by nine inches in diameter, having a tightly fitting tin cover. Make eight holes in the cover, each hole one inch in diameter. These holes should be arranged in a circle half way between the border of the cover and the centre. Another hole of the same size should be made in the centre of the cover.

2. A wire basket large enough to hold several nursing bottles.
3. Rubber corks for the bottles.
4. A brush for cleaning out the bottles.

Put the bottles filled with milk in the wire basket. Each bottle should have in it only milk enough for one feeding. Do not cork the bottles. Pour into the tin pail about two inches of water, bring it to the boiling point and then lower the basket of bottles slowly into the pail. Take care not to let the bottles touch the water. Put on the cover of the pail and let the steaming go on for ten minutes; then take off the cover and cork the bottles. Put on the cover again and let the steaming go on fifteen or twenty minutes longer. The milk is now sterilized and the bottles should be put in a dark cool place till wanted.

The milk should be prepared freshly every day and not kept over from one day to another.

Before using, the milk can be warmed by putting the bottle in warm water. If milk is left in the bottle after the infant has been fed, throw it away.

Anyone who is unable to carry out the directions given above for sterilizing milk, should boil the infant's milk as soon as it is received; by so doing, it will be safer for the infant than raw milk is, especially in the hot summer weather.

The wire baskets can be bought at stores dealing in druggists' supplies.

The Arnold Steam Sterilizer, including everything needed for sterilizing milk, can be bought for $3.00.

A circular on ventilation was prepared by Edwin Farnham, M. D., under the direction of the Board. It is as follows: —

Ventilation is the process whereby an effort is made to obtain within doors, as nearly as may be, an air as pure as that without.

In the open air pollutions are dissipated in the infinity of the surrounding atmosphere, while in houses, unless great care is exercised, they collect and remain in corners and recesses, rendering the air unfit for breathing.

Of all the influences acting on man, no one is more important to his physical well-being than that of the air he breathes. Without direct sunlight the human machine can exist, not indeed in a high degree of efficiency, but it can exist and go on working for a considerable length of time. Without food, life can be prolonged for days, but deprivation of air extinguishes life in a few minutes.

It is not customary to regard air as food, yet such it is for it supplies to the blood one of its most important constituents — oxygen. Deprived of oxygen, the blood, the river of life, fails to convey to the various tissues of the body the proper material for their upbuilding and maintenance in working order.

After delivering to the tissues of the body the oxygen which it acquired from the inspired air, the blood takes up waste matter of the system and carries it to the lungs, thence to be cast out of the body with the expired air. The air in confined spaces is thus rendered unfit for respiration by its deficiency in oxygen, and its pollution by the waste products given off from the breath. Exhalations from the surface of the body are also sources of contamination.

There are several methods for testing the contamination of air in rooms, but that proposed by De Chaumont answers the purpose roughly. That test is the foul stench perceptible on entering a badly ventilated, occupied apartment by a person who has been for some time in the open air.

As the majority of persons are compelled to accept their accommodations as they exist, and to do the best they can with them, any method of ventilation for rooms must be such as requires no complicated apparatus and is not expensive.

The movement of the air is dependent on its temperature. The warmer air, being lighter, rises, and the cooler air flows in to take its place.

An open fireplace helps ventilation, especially in winter when there is a fire, for a draught up the chimney being established, the warmed, foul air passes out, and the cooler, pure air outside rushes in to take its place. A constant circulation is thus established. The windows should be partly open to allow the pure air from without the dwelling to enter and take the place of the displaced foul air. In warm weather, the windows should be wide open, and if the windows are on opposite sides of the room, the air is renewed more rapidly and effectually. Even in cold weather an opening should be left between the upper and lower sashes, as it is in

cold weather that the air of occupied rooms is most apt to be foul Windows should be made so as to open at both top and bottom Gas, candles and lamp lights consume the oxygen of the air and make it poorer for the purpose of respiration.

An element so all-pervading and essential as air should be obtained in the highest degree of purity possible. This condition prevails out-of-doors; and as nearly everyone, in this climate at least, passes the night within doors, the condition of the bedroom air is of prime importance.

No bedroom contains a sufficient supply of fresh air to last through the night. Bedroom windows should be left open all day, and not tightly closed at night, even during the coldest weather. The opinion that night air is impure is an error. Carnelley, in his investigations, found less organic matter and fewer micro-organisms present in night air out-of-doors than in similar samples taken during the day.

Bedrooms should contain as little furniture and as few hangings as possible, for the foul exhalations from human beings cling round such objects and are difficult to dislodge.

It is impossible to lay too much stress on the importance for everyone of as large a supply of pure air as can possibly be obtained. Most influences are intermittent in their action, but the air is always with us, and though the air of badly ventilated rooms may not be the direct cause of any specific disease, persons who breathe it constantly suffer from a general impairment of the condition of the system and become thereby more liable to contract disease when exposed to its exciting cause.

To prevent the transmission of infectious diseases by means of bottles, etc., the Board adopted the following regulation November 18th : —

OFFICE OF THE BOARD OF HEALTH,
November 18, 1903.

Whereas, in the opinion of this Board, smallpox, cholera, diphtheria, membranous croup, scarlet fever, typhoid fever, typhus fever and measles are diseases dangerous to the public health within the meaning of Chapter 75 of the Revised Laws, and that milk may be a vehicle for the transmission of the germ causing said diseases,

Therefore, be it ordered that the following regulation be adopted : —

No bottle, can nor receptacle of any kind used for the reception or storage of milk shall be removed from a private house, apartment or tenement wherein a person has any of the said diseases unless with the consent of this Board in writing.

Whoever violates this regulation shall forfeit not more than one hundred dollars.

Adopted November 18, 1903.

A TRUE RECORD.

ATTEST: JAMES B. SOPER,
Clerk.

MEDICAL INSPECTION OF SCHOOLS.

The diseases discovered in the schools and the number of cases were as follows : —

Chicken-pox	14
Measles	1
Mumps	8
Scarlet fever	1
Whooping-cough	42
Pediculosis	192
Diseases of ear	10
Diseases of eye	92
Diseases of nervous system	11
Diseases of respiratory system	10
Diseases of skin	110
All other diseases	192
Total	683

DIPHTHERIA HOSPITAL.

January 1, 1903, there were in the hospital 4 cases remaining from the previous year. From January 1 to December 31, 1903, inclusive, there were admitted 89 cases. Of laryngeal diphtheria there were 14 cases, and 6 deaths; a fatality of 42.85 per cent. Of the ordinary form there were 78 cases, and 7 deaths; a fatality of 8.97 per cent. Of both forms combined the fatality was 14.13 per cent. On December 31, 1903, there were remaining in hospital 7 cases.

The stay in hospital and the termination of the illness of these cases (both clinically and bacterially diphtheria) were as follows: —

Days	Recovered.	Died.	Total Days.	Days.	Recovered.	Died.	Total Days.
Under 1	..	5	5	33	3	..	99
1	..	2	2	36	1	..	36
2	..	2	4	37	1	..	37
4	..	1	4	38	1	1	76
6	1	..	6	39	1	..	39
8	8	..	64	40	1	..	40
10	..	2	20	41	1	..	41
11	3	..	33	42	2	..	84
12	1	..	12	43	1	..	43
14	2	..	28	44	1	..	44
15	2	..	30	45	1	..	45
16	3	..	48	47	2	..	94
17	7	..	119	48	1	..	48
18	1	..	18	51	3	..	153
19	1	..	19	54	2	..	108
20	1	..	20	55	1	..	55
21	1	..	21	60	1	..	60
22	2	..	44	64	1	..	64
23	2	..	46	68	1	..	68
25	2	..	50	81	1	..	81
26	1	..	26	82	1	..	82
27	5	..	135	90	1	..	90
29	2	..	58				
31	1	..	31	Total...	79	13	2,458
32	4	..	128				

There were also admitted four patients, all of whose cultures taken for diagnosis proved negative. One of these patients had the laryngeal form of the disease.

The stay in hospital and termination of the illness were as follows :—

Days.	Recovered.	Died.	Total Days.	Days.	Recovered.	Died.	Total Days.
4	1	..	4	31	1	..	31
10	1	..	10				
17	1	..	17	Total...	4	..	62

On May 4th the Board created the office of Inspector of Provisions. The Board feels that the results have justified the creation of this new office, and you are hereby referred to the report of the Inspector of Provisions for the work performed by him since the office was created.

A large number of cesspools and vaults have been abated during the year. There are quite a number of these still remaining and we feel they are a detriment to the community; but they cannot be abated until provision is made for either water or sewer connection in the respective localities where they are situated.

We recommend a new hospital for cases of diphtheria and scarlet fever, with a ward for the care of measles. We also recommend that a proper hospital be constructed for the care of small-pox cases. We recommend the construction of a hospital for cases of consumption. In fact, we believe that there should be proper buildings constructed for the reception of persons with the various infectious diseases. It would tend to promote the health of the community, would be appreciated by our citizens and would be in line with the steps taken by progressive municipalities.

There has been a decrease in the amount of infectious disease during the past year.

JOHN J. SCOTT,
GOODWIN A. ISENBERG,
ROSWELL WETHERBEE, M. D.
} *Board of Health of City of Cambridge.*

NUISANCES ABATED.

Full, overflowing and offensive privy vaults	6
Offensive and defective water-closets	115
Full and defective cesspools and catch-basins	33
No traps to sinks	10
Leaky and defective traps	26
Defective drainage, open and defective drains	42
Plumbing tests made	57
Filthy yards	261
Filthy stables and cow sheds	50
Manure in yards and lots	16
Wet and damp cellars	8
Stagnant water on premises	15
Dead animals on premises	11
Dead hens on premises	2
Filthy buildings	5
Filthy cellars	134
New water-closets put in	21
Houses vacated	5
Dirty hen-coops	4
Miscellaneous	3
Total	824
Number of inspections	7,546
Number of subsequent inspections	5,075
Total	12,621
Number of notices served	156
Slop-closets and sluice-vaults abated	1
Offal receptacles cleaned and new ones provided	126
Vacant lots cleaned	12
Defective plumbing in whole house remedied	33
Privy vaults abated	11
Cesspools abated	49
Number of houses placarded	322
Premises disinfected	683
Number of cellars from which hens were removed	2
Number of patients taken to the Diphtheria Hospital	86
Number of patients taken to the Cambridge Hospital	35
Number of patients taken to the Small-pox Hospital	6

BACTERIOLOGICAL LABORATORY,
CITY HALL, CAMBRIDGE, February 15, 1903.

To the Board of Health : —

GENTLEMEN : — I beg to submit the following report of work done in the laboratory from January 1 to February 15, 1903. The total number of examinations made was 163, distributed as follows : —

	Throat Cultures for Diphtheria.	Sputum Examinations for Tuberculosis.	Blood Examinations for Typhoid Fever.	Total.
January	70	23	11	104
February 1–15	45	7	7	59
Total	115	30	18	163

The throat cultures for diphtheria may be divided into two groups, the first comprising those taken for the purpose of diagnosis, the second including those taken for release after the disappearance of the clinical signs.

CULTURES FOR DIAGNOSIS.

	Positive.	Negative.	No Growth.	Total.
January	6	39	2	47
February 1–15	10	18	0	28
Total	16	57	2	75

CULTURES FOR RELEASE.

	Positive.	Negative.	No Growth.	Total.
January	7	16	0	23
February 1–15	7	10	0	17
Total	14	26	0	40

The 75 cultures for diagnosis were from 68 cases, seven being second cultures from cases where the first test was doubtful or unsatisfactory.

Of the 30 sputa examined for tuberculosis, four were positive and 26 negative. Of 18 samples of blood tested for the Widal reaction for typhoid, 7 were positive and 11 negative.

Respectfully submitted,

EUGENE A. DARLING, M. D.

CAMBRIDGE, January 1, 1904.

To the Board of Health:—

GENTLEMEN:—I respectfully submit the following report of the work done in the Bactriological Laboratory from February 16 to December 31, 1903:—

	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct	Nov.	Dec.	Totals
Positive cultures for diagnosis of diphtheria	9	9	15	15	5	9	10	12	26	46	36	192
Negative cultures for diagnosis of diphtheria	15	34	23	36	13	9	12	18	26	47	72	305
No growth cultures for diagnosis	0	0	2	0	0	1	0	1	1	0	1	6
Cultures for release	25	55	47	53	45	34	42	53	87	84	148	673
No growth cultures for release	0	0	0	1	0	0	0	1	1	0	0	3
Sputa examined for the bacilli of tuberculosis	8	31	24	13	10	11	10	13	11	19	13	163
Blood examined for the Widal test in typhoid fever.	5	12	7	11	14	17	15	26	28	26	15	176
Totals	62	141	118	129	87	81	89	124	180	222	285	1,518

The 503 cultures for diagnosis were from 490 cases, 13 being second cultures from cases where the first test was doubtful or unsatisfactory.

Cultures were submitted for diagnosis and confirmed in 63 per cent. of the cases of diphtheria reported from February 16 to December 31, 1903.

There were 163 sputa examined for the bacilli of tuberculosis; 68 were positive and 95 negative. Of 176 samples of blood examined for the Widal reaction in typhoid fever, 69 gave a positive test and 107 a negative one.

A new culture station has been established at Tupper's pharmacy, North Cambridge, for the convenience of the physicians practising in that vicinity.

I recommend that from those persons who have diphtheria and attend any school, two successive negative cultures for release should be required. That in all cases for release cultures should be taken from the nose as well as from the throat. That antitoxin should be placed in some central locality from which physicians may obtain it at any hour of the day or night.

JOHN R. SENNOTT, M. D.,
City Bacteriologist.

January 1, 1904.

To the Honorable, the Board of Health of the City of Cambridge : —

The undersigned, Inspector of Provisions, submits a report for work performed during his term of service, from May 4 to December 31, 1903.

Since May 4th I have visited at regular intervals on the days set apart for slaughtering, the three slaughtering establishments licensed to do business in this City. Business at these establishments has been conducted in accordance with the requirements of law. I found the conditions on the whole satisfactory. There were 12,056 lbs. of veal condemned by me on account of immaturity.

The various stores and teams have been regularly inspected to ascertain the condition of meats, fish, vegetables, and fruit, and the following table will show the amount of said articles which I have condemned and destroyed in accordance with the requirement of law, to wit : —

Meats.	
Beef	6,094 pounds
Poultry	1,534 "
Fish.	
Haddock, cod, mackerel and salmon : —	
An aggregate of	2,780 pounds
Lobsters	304 "
Vegetables.	
Potatoes	1,024 bushels
Beets	1 "
Tomatoes	10 "
Beans (butter)	1 "
Tomatoes	25 cans
Fruits.	
Berries	3 crates
Melons	1 crate
Oranges	2 boxes
Bananas	2 bunches
Figs	20 boxes
Apples	8 bushels
Macaroni	1 barrel
Eggs (decayed)	37 dozen

Not included in the foregoing table, as they were not considered seizures, were many calves which arrived at the slaughter houses dead. These were prepared for rendering by the owners under my direction.

I wish at this time to call the attention of the Board to the improved condition of the ice chests and places of storage for meats, fish, vegetables,

fruits and eggs in many of the stores of the City. At the time of my first inspection, many of these receptacles were unfit for storage purposes. Today there is no cause for complaint.

During the past eight months I have made frequent visits to the various stores engaged in the sale of provisions, fish and fruit, and have found the general condition of these stores to be satisfactory. A strict examination has also been made of the goods carried by pedlers on their teams, and this scrutiny has resulted in the destruction of much material unfit for consumption.

The following number of examinations have been made at each of the respective places: —

Provision stores	7,680
Fish stores	2,248
Fruit stores	3,420
Pedlers' teams	10,246
Slaughtering houses	384

My requests to store keepers for the destruction of condemned articles of food has usually been complied with readily.

Respectfully submitted,

JOSEPH L. JOHNSON,
Inspector of Provisions.

OFFICE OF THE BOARD OF HEALTH,
CAMBRIDGE, December 31, 1903.

To the Board of Health of the City of Cambridge:—

The undersigned Clerk to the Board of Health herewith submits a statement of the expenditures of the Health Department for the financial year ending November 30, 1903.

GENERAL EXPENSES.

Original appropriation made by the City Council	$7,500 00	
Transferred from Temporary Hospital appropriation	765 00	
Transferred from Small-pox Hospital appropriation	300 00	
		$8,565 00
Transferred to Contingent Fund		11 58
		$8,553 42

AMOUNT EXPENDED.

Paid Cambridge Hospital for care of 24 scarlet fever cases and one typhoid fever	$3,469 60	
Reimbursed other cities and towns	2,854 67	
Bacteriological supplies	161 43	
Chemicals, fumigators and maintenance	231 44	
Stationery and office supplies	121 46	
Car tickets	450 00	
Carriage and ambulance hire	122 50	
Printing and postage	187 34	
Telephones	151 90	
Legal services	48 33	
Public sanitaries	67 89	
Burial of animals	91 50	
Advertising	39 95	
Ambulance maintenance	42 40	
Express	12 60	
Badge (Inspector of Provisions)	1 00	
Signs for dumps	12 91	
Expert testimony (Smith case)	10 00	
Ellen F. Daly, nurse at 374 Cambridge St., Typhoid fever case	22 00	
Keep of horse, shoeing, storage of vehicles, wagon and harness repairs	454 50	
		$8,553 42
Balance of appropriation		$0 00

SALARIES.

Original appropriation made by City Council	$11,300 00	
Transferred from Small-pox Hospital appropriation	700 00	
		$12,000 00
Transferred to Contingent Fund		43 15
		$11,956 85

AMOUNT EXPENDED.

Salary of medical inspector and physician to Board	$3,000 00	
" " clerk to the Board	1,200 00	
" " secretary	800 00	
" " bacteriologist	1,080 00	
" " school inspectors (8)	1,400 00	
" " sanitary inspectors	2,134 00	
" " plumber	950 00	
" " driver and inspector	814 77	
" " inspector of provisions	578 08	
		$11,956 85
Balance of appropriation		$0 00

DIPHTHERIA HOSPITAL.

59 Reservoir Street.

Original appropriation by City Council		$9,000 00	
Transferred to "Other Expenses,"		765 00	
			$8,235 00
Transferred to Contingent Fund			71 36
			$8,163 64

AMOUNT EXPENDED.

Salary of physician	$1,200 00		
" matron	780 00		
" nurses	2,020 00		
" house-man	728 00		
" cook	306 00		
" laundress	338 40		
" house servant	85 71		
Consulting physician	5 00		
		$5,463 11	
Medical supplies	$193 66		
Furnishings	198 25		
Coal and wood	258 55		
Gas	105 10		
Groceries and provisions	1,522 39		
Milk	238 00		
Ice	63 37		
		2,579 32	
Miscellaneous: —			
Paints and varnishes	$1 65		
Repairs	57 16		
Telephone	58 95		
Stationery	70		
Express	1 25		
Fee, Y. W. C. A.	1 50		
		121 21	
			8,163 64
Balance of appropriation			$0 00

SMALL-POX.

Original appropriation by City Council	$8,000 00		
Transferred from "Receipts"	2,869 20		
		$10,869 20	
Transferred to Contingent Fund	$238 31		
Transferred to "Salaries"	700 00		
Transferrd to "Other Expenses"	300 00		
		1,238 31	
			$9,630 89
		$9,630 89	

AMOUNT EXPENDED.

Medical services: —		
Dr. Brough, small-pox specialist	$295 00	
Physicians to examine for vaccination scars	60 00	
Medical supplies	30 09	
Vaccine	3 65	
Hospital furnishings	6 53	
Nurses	668 56	
Servants	1,169 94	
Groceries and provisions	382 68	
Milk	60 22	
Ice	7 16	
Coal and wood	101 50	
Carriage hire	291 00	
Repairs	1 79	
Fare to South Framingham	1 00	
Moving Philip McDonald from New Street	50 00	
Repairing and maintenance of small-pox ambulance	89 75	
Cleaning vaults	10 00	
Rent paid John F. O'Brien	208 00	
Paid for tax title to P. Keenan's house, New Street	25 00	
Damages to stock of Henry Vanness	125 00	
Springfield, amount overpaid	55 71	
Paid Town of Belmont	1,795 20	
" " " Watertown	705 95	
" " " Arlington	22 16	
" City of Somerville	465 00	
Damages paid Patrick Keenan	3,000 00	
		9,630 89
Balance of appropriation		$0 00

Respectfully submitted,

JAMES B. SOPER,
Clerk to Board of Health.

VITAL STATISTICS.

Death Rate per 1,000 Living, from All Causes.
Estimated Population, 98,639.

1894	1895	1896	1897	1898	1899	1900	1901	1902	1903
19.56	18.40	18.87	17.93	17.65	17.25	16.87	16.83	15.15	15.21

The mean annual death rate for the ten years, 1894 to 1903, inclusive, was 17.37.

In calculating death rates, the deaths of non-residents occurring in the City were excluded, and the deaths of residents wherever they occurred were included.

The estimate of population was furnished by the State Board of Health.

The death rate for the year just passed is always a little below the correct rate, as the returns of the deaths of some residents which occurred at a distance from home are not received till after the report has been made up. This error is corrected in the next annual report.

The division of the City into five districts, corresponding to the old five wards, is adopted for the purpose of facilitating comparison with previous years.

The figures given above are the crude, or actual death rates, and while comparable with each other, they are not strictly comparable with the death rates of other places.

SCARLET FEVER.

CASES REPORTED.

District.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1.....	2	0	1	4	0	1	0	1	0	1	7	4	21
2.....	5	12	20	3	2	9	1	4	3	3	7	6	75
3.....	5	3	0	1	1	1	1	1	1	1	0	4	19
4.....	6	3	2	1	13	1	1	5	0	2	2	2	38
5.....	7	4	1	4	3	2	2	1	1	0	6	4	35
Total.....	25	22	24	13	19	14	5	12	5	7	22	20	188

The reported cases of Scarlet Fever show a decrease of 11 cases from those reported in 1902.

District 1 shows a decrease of 8 cases.
District 2 shows a decrease of 10 cases.
District 3 shows a decrease of 15 cases.
District 4 shows a decrease of 5 cases.
District 5 shows an increase of 27 cases.

Cases Reported Weekly.

Jan. 3	4	July 4	3
" 10	5	" 11	1
" 17	9	" 18	1
" 24	5	" 25	2
" 31	3	Aug. 1	0
Feb. 7	12	" 8	5
" 14	4	" 15	2
" 21	1	" 22	4
" 28	5	" 29	1
Mar. 7	6	Sept. 5	0
" 14	6	" 12	3
" 21	4	" 19	2
" 28	8	" 26	0
April 4	3	Oct. 3	0
" 11	4	" 10	1
" 18	0	" 17	0
" 25	2	" 24	2
May 2	6	" 31	4
" 9	2	Nov. 7	1
" 16	5	" 14	3
" 23	8	" 21	9
" 30	2	" 28	8
June 6	6	Dec. 5	6
" 13	3	" 12	5
" 20	1	" 19	6
" 27	2	" 26	3

Age and Sex Distribution of 186 Cases.

Age.	Males.	Females.	Persons.
Under 1 year	2	0	2
1– 2 years	1	2	3
2– 3 "	6	5	11
3– 4 "	4	6	10
4– 5 "	12	15	27
5–10 "	41	43	84
10–15 "	9	15	24
15–20 "	5	5	10
20–30 "	3	8	11
30–40 "	1	3	4
Total	84	102	186

Death Rate per 1,000 Living.

1894	1895	1896	1897	1898	1899	1900	1901	1902	1903
1.27	0.20	0.07	0.11	0.06	0.08	0.09	0.08	0.09	0.10

Morbidity, or Sick Rate, per 1,000 Living.

11.37	3.59	2.36	2.68	1.38	1.75	1.91	1.07	2.06	1.90

Fatality, or Case Death Rate, Percentage.

11.20	5.80	3.03	4.32	4.91	5.06	5.11	7.92	4.52	5.31

For the ten years recorded above the mean annual death rate was 0.21; the mean annual morbidity, 3.00; the mean annual fatality, 5.71.

DIPHTHERIA.

CASES REPORTED.

District.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1.....	1	5	2	4	3	1	1	1	2	3	4	12	39
2.....	6	8	4	5	9	4	11	8	14	23	55	27	174
3	0	6	1	0	2	2	2	3	3	0	4	2	25
4.....	2	1	2	4	3	4	2	1	0	10	10	11	50
5.....	1	0	1	3	1	2	1	5	0	4	6	10	34
Total.....	10	20	10	16	18	13	17	18	19	40	79	62	322

The reported cases of Diphtheria show a decrease of 138 cases from those reported in 1902.

District 1 shows a decrease of 98 cases.
District 2 shows an increase of 52 cases.
District 3 shows a decrease of 17 cases.
District 4 shows a decrease of 69 cases.
District 5 shows a decrease of 6 cases.

Cases Reported Weekly.

Jan. 3	3	July 4	2
" 10	1	" 11	6
" 17	2	" 18	4
" 24	3	" 25	5
" 31	2	Aug. 1	2
Feb. 7	4	" 8	5
" 14	4	" 15	6
" 21	8	" 22	0
" 28	4	" 29	7
Mar. 7	3	Sept. 5	0
" 14	2	" 12	4
" 21	0	" 19	7
" 28	2	" 26	5
April 4	4	Oct. 3	6
" 11	3	" 10	14
" 18	4	" 17	13
" 25	4	" 24	4
May 2	6	" 31	6
" 9	4	Nov. 7	4
" 16	4	" 14	24
" 23	4	" 21	21
" 30	4	" 28	27
June 6	2	Dec. 5	10
" 13	2	" 12	22
" 20	3	" 19	13
" 27	4	" 26	15

Age and Sex Distribution of 321 Cases.

Age.	Males.	Females.	Persons.
Under 1 year	4	3	7
1– 2 years	10	7	17
2– 3 "	11	11	22
3– 4 "	20	11	31
4– 5 "	13	19	32
5–10 "	50	56	106
10–15 "	23	22	45
15–20 "	12	6	18
20–30 "	14	16	30
30–40 "	3	9	12
40–50 "	0	1	1
Total	160	161	321

Death Rate per 1,000 Living.

1894	1895	1896	1897	1898	1899	1900	1901	1902	1903
0.76	1.29	0.77	0.60	0.34	0.61	0.78	0.62	0.36	0.28

Morbidity, or Sick Rate, per 1,000 Living.

2.24	7.27	5.43	3.74	1.73	5.58	10.00	6.53	4.77	3.26

Fatality, or Case Death Rate, Percentage.

32.5	17.8	13.6	15.8	19.0	10.9	7.78	9.59	7.60	8.69

For the ten years recorded above the mean annual death rate was 0.64; the mean annual morbidity, 5.05; the mean annual fatality, 14.32.

TYPHOID FEVER.

CASES REPORTED.

District.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1.....	1	2	1	0	0	3	1	3	4	0	5	3	23
2.....	2	2	0	0	0	1	5	6	7	11	10	3	47
3.....	0	0	1	1	0	2	1	0	0	2	3	0	10
4.....	3	0	1	1	4	0	3	5	3	2	6	7	35
5.....	0	1	0	0	0	0	0	1	1	4	0	1	8
Total.....	6	5	3	2	4	6	10	15	15	19	24	14	123

The reported cases of Typhoid Fever show a decrease of 5 cases from those reported in 1902.

District 1 shows a decrease of 6 cases.
District 2 shows an increase of 23 cases.
District 3 shows a decrease of 33 cases.
District 4 shows an increase of 14 cases.
District 5 shows a decrease of 3 cases.

Age and Sex Distribution of 123 Cases.

Age.	Males.	Females.	Persons.
2– 3 years	0	1	1
3– 4 "	0	1	1
4– 5 "	1	2	3
5–10 "	5	7	12
10–15 "	5	4	9
15–20 "	13	9	22
20–30 "	20	20	40
30–40 "	16	8	24
40–50 "	3	2	5
50–60 "	1	3	4
60–70 "	0	1	1
70–80 "	0	1	1
Total	64	59	123

Death Rate per 1,000 Living.

1894	1895	1896	1897	1898	1899	1900	1901	1902	1903
0.29	0.14	0.37	0.14	0.15	0.23	0.16	0.10	0.17	0.14

Morbidity or Sick Rate, per 1,000 Living.

1.50	1.31	3.04	1.22	1.09	1.11	1.20	1.02	1.32	1.24

Fatality, or Case Death Rate, Percentage.

17.5	11.2	11.7	10.4	14.5	20.0	13.5	10.4	13.28	11.36

For the ten years recorded above the mean annual death rate was 0.18; the mean annual morbidity, 1.40; the mean annual fatality, 13.38—.

MEASLES.

CASES REPORTED.

District.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1.....	0	1	1	1	2	0	0	0	0	0	0	2	7
2.....	4	1	1	1	3	5	3	0	0	3	4	5	30
3.....	7	3	1	0	0	0	0	0	0	1	0	8	20
4.....	3	0	0	1	6	7	2	1	0	0	0	2	22
5.....	0	0	0	0	1	0	0	0	0	0	0	0	1
Total.....	14	5	3	3	12	12	5	1	0	4	4	17	80

The reported cases of measles show a decrease of 327 cases from those reported in 1902.

District 1 shows a decrease of 129 cases.
District 2 shows a decrease of 30 cases.
District 3 shows an increase of 5 cases.
District 4 shows a decrease of 45 cases.
District 5 shows a decrease of 128 cases.

Cases Reported Weekly.

Jan. 3	1	July 4	2
" 10	4	" 11	2
" 17	1	" 18	2
" 24	6	" 25	0
" 31	2	Aug. 1	0
Feb. 7	2	" 8	1
" 14	2	" 15	0
" 21	1	" 22	0
" 28	0	" 29	0
Mar. 7	1	Sept. 5	0
" 14	2	" 12	0
" 21	0	" 19	0
" 28	0	" 26	0
April 4	0	Oct. 3	0
" 11	1	" 10	0
" 18	0	" 17	2
" 25	2	" 24	0
May 2	0	" 31	2
" 9	2	Nov. 7	0
" 16	3	" 14	0
" 23	4	" 21	2
" 30	3	" 28	1
June 6	1	Dec. 5	1
" 13	3	" 12	0
" 20	5	" 19	8
" 27	2	" 26	4

Age and Sex Distribution of 73 Cases.

Age.	Males.	Females.	Persons.
Under 1 year	1	2	3
1– 2 years	5	0	5
2– 3 "	5	3	8
3– 4 "	0	5	5
4– 5 "	7	7	14
5–10 "	7	9	16
10–15 "	1	2	3
15–20 "	3	2	5
20–30 "	3	9	12
30–40 "	0	1	1
40–50 "	0	1	1
Total	32	41	73

Death Rate per 1,000 Living.

1894	1895	1896	1897	1898	1899	1900	1901	1902	1903
0.00	0.03	0.05	0.03	0.01	0.08	0.00	0.10	0.04	0.04

Morbidity, or Sick Rate, per 1,000 Living.

.....	3.05	2.72	4.78	0 60	5.26	1.50	5.97	4.22	0.80

Fatality, or Case Death Rate, Percentage.

.....	1.20	2.20	0.73	1.80	1.69	0.00	1.76	0.98	5.00

For the ten years recorded above the mean annual death rate was 0.03.

For the nine years recorded above the mean annual morbidity was 3.21; and the mean annual fatality was 1.70.

Death Rate per 1,000 Living.

	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903
Cancer	0.59	0.77	0.68	0.54	0.82	0.56	0.75	0.97	0.82	0.70
Diarrhœal diseases	2.14	1.69	2.41	2.21	2.00	1.35	1.51	0.97	0.99	0.98
Phthisis	2.08	2.22	2.28	2.29	2.24	1.85	2.25	1.99	1.91	1.67
Whooping-cough...	0.43	0.13	0.21	0.19	0.25	0.31	0.13	0.11	0.09	0.16
Bronchitis.....	0.65	0.50	0.70	0.62	0.52	0.56	0.52	0.37	0.40	0.41
Pneumonia.....	1.41	1.40	1.91	1.20	1.66	1.81	1.65	1.84	1.70	1.85

The mean annual death rate for the ten years recorded above was of cancer, 0.72; of diarrhœal diseases, 1.62; of phthisis, 2.07; of whooping-cough, 0.20; of bronchitis, 0.52; of pneumonia, 1.64.

SMALL-POX.

On the first day of January there were five cases remaining in the hospital. During the year six cases were reported, all of which were removed to the hospital on New Street. There was also one case occurring in a resident of this City who died in the hospital in Boston.

Below are given the sex, age, date of admission to hospital, condition as to vaccination, termination of disease and length of stay in hospital:—

Sex.	Age.	Admitted.	Vaccinated.	Well.	Died.	In Hospital.
M.	19 years	Dec. 30, 1902	Yes	Jan. 17, 1903	.....	18 days
"	16 "	" 31, 1902	No	" 27, 1903	.....	27 "
"	12 "	" 31, 1902	"	" 31, 1903	.....	31 "
F.	9 "	" 31, 1902	"	" 10, 1903	.....	10 "
"	6 "	" 31, 1902	"	" 24, 1903	.....	24 "
M.	57 "	Jan. 5, 1903	Yes	Feb. 21, 1903	.....	47 "
F.	42 "	" 7, 1903	"	Jan. 18, 1903	.....	11 "
M.	18 "	" 15, 1903	No	Feb. 14, 1903	.....	30 "
"	27 "	" 20, 1903	Yes	Jan. 29, 1903	.....	9 "
F.	1 "	Apr. 23, 1903	No	May 12, 1903	.....	19 "
M.	30 "	Sept. 29, 1903	"	Oct. 19, 1903	.....	20 "

RETURN OF DEATHS (NON-RESIDENTS OMITTED).

Age and Sex Distribution.

Age.	Males.	Females.	Persons.
0– 1 year	182	141	323
1– 2 years	41	31	72
2– 3 "	11	15	26
3– 4 "	13	11	24
4– 5 "	5	5	10
5–10 "	21	23	44
10–15 "	5	10	15
15–20 "	11	16	27
20–30 "	64	65	129
30–40 "	64	59	123
40–50 "	55	60	115
50–60 "	73	82	155
60–70 "	89	86	175
70–80 "	73	95	168
Over 80 "	33	61	94
Total	740	761	1,501

Monthly Distribution.

January	128	August	129
February	133	September	129
March	159	October	121
April	129	November	115
May	115	December	118
June	87		
July	138	Total	1,501

Causes.

	Males.	Females.	Persons.
Bronchitis	16	25	41
Pneumonia	75	108	183
Cancer	22	49	71
Cerebro-spinal Meningitis	4	2	6
Cholera Infantum	20	19	39
Diarrhœa and Cholera Morbus	32	24	56
Dysentery	1	1	2
Diphtheria	18	10	28
Erysipelas	5	0	5
Fever, Scarlet	5	5	10
Fever, Typhoid	11	3	14
Influenza	6	4	10
Measles	2	2	4
Phthisis	74	92	166
Puerperal Septicæmia	0	1	1
Small-pox	0	1	1
Whooping-cough	9	7	16
Diseases of Brain and Spinal Cord	74	97	171
" Heart	77	74	151
" Kidney	40	34	74
Accident	39	7	46
Homicide	1	0	1

	Males.	Females.	Persons.
Suicide	10	1	11
Unknown and ill-defined	64	62	126
All other causes	135	133	268
Total	740	761	1,501
Still Births	57	36	93

Erratum. In the table published in the report for the year 1902 giving the mean annual death rates for the ten years 1891–1900 inclusive, the death-rate for all persons (P) at all ages from Cancer should read 0.60 instead of 0.06.

EDWIN FARNHAM, M. D.,
Medical Inspector and Physician to the Board.

REPORT OF THE SCHOOL COMMITTEE FOR 1903

In compliance with Section 44 of the Rules of the School Board, the Superintendent herewith submits his twenty-ninth annual report, it being for the year ending December 31, 1903:—

Population of Cambridge.

1875	47,838	1895	81,643
1885	59,658	1900	91,886
1903 (estimated)	96,685		

School Census.

Number of children in the city five years old or more, but less than fifteen.

1885 (taken in May)	10,957	1895 (taken in May)	12,869
1890 (taken in May)	11,971	1903 (taken in September)	15,512

Schools and Class Rooms.

Latin School	1	Class rooms in use	14
English High School	1	" " "	11
Manual Training School	1	" " "	8
Grammar Schools	7	" " "	94
Primary Schools	19	" " "	93
Grammar and Primary Schools	9	" " "	102
Kindergartens	15	" " "	14
Evening Drawing Schools	2	" " "	5
Evening High School	1	" " "	10
Evening Elementary Schools	4	" " "	26
Whole number of Day Schools			53
Number of class rooms for Day Schools			336

Number of Teachers in the Day Schools.

[Special teachers are included in the total.]

December	Latin School	English High School	Manual Training School	Grammar Schools	Primary Schools	Kindergartens	Total
1899	19	23	14	170	138	24	396
1900	22	24	14	173	142	26	409
1901	22	24	14	177	143	25	413
1902	24	24	15	179	140	25	417
1903	23	24	16	183	142	29	428

ATTENDANCE AT ALL THE DAY SCHOOLS.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1899	15,753	13,255	12,285	92.6
1900	16,203	13,816	12,684	91.8
1901	16,065	14,144	13,021	92.1
1902	16,341	14,244	13,215	92.8
1903	16,394	14,397	13,250	92.0

ATTENDANCE AT THE LATIN SCHOOL.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1899	398	371	351	94.8
1900	430	404	385	95.2
1901	490	468	449	96.1
1902	488	465	441	95.1
1903	501	474	451	94.9

ATTENDANCE AT THE ENGLISH HIGH SCHOOL.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1899	794	688	666	96.7
1900	572	514	491	95.6
1901	613	517	490	94.8
1902	577	498	464	93.1
1903	583	493	470	95.3

ATTENDANCE AT THE MANUAL TRAINING SCHOOL.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1900	212	192	183	95.5
1901	217	191	184	96.2
1902	254	242	229	94 4
1903	300	262	251	95.9

ATTENDANCE AT THE GRAMMAR SCHOOLS.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1899	7,008	6,107	5,738	93.9
1900	7,192	6,295	5,891	93.6
1901	7,044	6,483	6,079	93.8
1902	7,359	6,711	6,316	94.1
1903	7,279	6,725	6,306	93.8

Attendance at the Primary Schools.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1899	6,750	5,514	5,071	91.9
1900	6,888	5,788	5,267	91.0
1901	6,815	5,840	5,310	90.9
1902	6,687	5,708	5,249	92.0
1903	6,711	5,755	5,227	90.8

Attendance at the Kindergartens.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1899	803	575	459	79.9
1900	909	623	467	74.9
1901	886	645	509	78.9
1902	976	620	516	83.2
1903	1,020	688	545	79.2

Number of Pupils Admitted to the Lowest Grade of the Latin School.

Course, 5 years.

Year	Boys	Average Age	Girls	Average Age
1899	58	14 years 5 months	51	14 years 4 months
1900	84	14 years 5 months	70	14 years 5 months
1901	57	14 years 6 months	58	14 years 2 months
1902	60	14 years 5 months	88	14 years 4 months
1903	65	14 years 4 months	80	14 years 5 months

Number of Pupils Graduated from the Latin School.

Course, 5 years.

Year	Boys	Average Age	Girls	Average Age
1899	16	18 years 3 months	27	18 years 5 months
1900	20	18 years 11 months	19	18 years 11 months
1901	22	18 years 7 months	34	19 years 0 months
1902	23	19 years 1 month	39	18 years 9 months
1903	18	18 years 4 months	31	18 years 10 months

NUMBER OF PUPILS ADMITTED TO THE LOWEST GRADE OF THE ENGLISH HIGH SCHOOL.

Year	Boys	Average Age	Girls	Average Age
1899	61	15 years 0 months	152	15 years 0 months
1900	56	15 years 5 months	170	15 years 1 month
1901	46	14 years 11 months	145	15 years 0 months
1902	41	14 years 8 months	155	15 years 1 month
1903	58	14 years 8 months	192	15 years 0 months

NUMBER OF PUPILS GRADUATED FROM THE ENGLISH HIGH SCHOOL.

Year	Boys	Average Age	Girls	Average Age
1899	14	18 years 4 months	45	18 years 6 months
1900	23	18 years 2 months	45	18 years 8 months
1901	13	18 years 3 months	47	18 years 9 months
1902	25	18 years 7 months	61	18 years 9 months
1903	15	18 years 8 months	58	18 years 7 months

NUMBER OF PUPILS ADMITTED TO THE LOWEST GRADE OF THE MANUAL TRAINING SCHOOL, WITH THE NUMBER OF GRADUATES.

Year	Admitted	Average Age	Graduated	Average Age
1899	92	15 years 3 months	13	18 years 6 months
1900	74	15 years 0 months	16	19 years 0 months
1901	110	15 years 2 months	21	18 years 3 months
1902	127	15 years 2 months	23	19 years 2 months
1903	144	15 years 2 months	38	18 years 7 months

NUMBER OF PUPILS GRADUATED FROM THE GRAMMAR AND PRIMARY SCHOOLS.

Year	Grammar Schools. Course, 6 yrs.	Average Age	Primary Schools. Course, 3 yrs.	Average Age
1899	553	15 years 0 months	1,393	9 years 8 months
1900	582	14 years 11 months	1,423	9 years 7 months
1901	565	14 years 11 months	1,467	9 years 7 months
1902	643	14 years 11 months	1,460	9 years 6 months
1903	648	14 years 9 months	1,428	9 years 5 months

Length of Time in Completing the Course of Study in the Grammar Schools.

Year	In 4 years	In 5 years	In 6 years	In 7 years or more
1899	6 per cent	31 per cent	47 per cent	16 per cent
1900	6 per cent	28 per cent	50 per cent	16 per cent
1901	6 per cent	28 per cent	50 per cent	16 per cent
1902	7 per cent	27 per cent	51 per cent	15 per cent
1903	6 per cent	26 per cent	53 per cent	15 per cent

Length of Time in Completing the Course of Study in the Primary Schools.

Year	In 2 years	In 2½ years	In 3 years	In 3½ years	In 4 years	In 4½ years or more
1899	3 per cent	4 per cent	58 per cent	7 per cent	20 per cent	8 per cent
1900	2 per cent	2 per cent	59 per cent	6 per cent	22 per cent	9 per cent
1901	3 per cent	1 per cent	61 per cent	5 per cent	20 per cent	10 per cent
1902	3 per cent	2 per cent	62 per cent	4 per cent	20 per cent	9 per cent
1903	3 per cent	2 per cent	60 per cent	5 per cent	22 per cent	8 per cent

Number of Pupils in the Latin School, December, 1903.

Grade	Boys	Girls	Total	Per cent
Fourteenth	23	31	54	.107
Thirteenth	48	37	85	.168
Twelfth	45	43	88	.174
Eleventh	48	88	136	.268
Tenth	64	79	143	.283
Total	228	278	506	

Number of Pupils in the English High School, December, 1903.

Grade	Boys	Girls	Total	Per cent
Thirteenth	18	78	96	.166
Twelfth	19	74	93	.161
Eleventh	33	90	123	.212
Tenth	48	201	249	.430
Specials	4	14	18	.031
Total	122	457	579	

NUMBER OF PUPILS IN THE MANUAL TRAINING SCHOOL, DECEMBER, 1903.

Grade	Boys		Per cent
Thirteenth	43	This school is for boys only. It became a part of the public school system, January 1, 1899.	.134
Twelfth	52		.162
Eleventh	98		.305
Tenth	128		.399
Total	321		

NUMBER OF PUPILS IN THE GRAMMAR SCHOOLS, DECEMBER, 1903.

Grade	Boys	Girls	Total	Per cent
Ninth	282	359	641	.092
D	60	62	122	.018
Eighth	351	445	796	.115
C	85	93	178	.026
Seventh	447	555	1,002	.145
Sixth	568	561	1,129	.160
B	112	138	250	.036
Fifth	620	610	1,230	.180
A	156	177	333	.048
Fourth	644	603	1,247	.180
Total	3,325	3,603	6,928	

NUMBER OF PUPILS IN THE PRIMARY SCHOOLS, DECEMBER, 1903.

Grade	Boys	Girls	Total	Per cent
Third	859	849	1,708	.293
Second	987	823	1,810	.310
First	1,272	1,047	2,319	.397
Total	3,118	2,719	5,837	

NUMBER OF PUPILS AND TEACHERS IN THE KINDERGARTENS.

Year	Boys	Girls	Total	Number of Teachers
1901	355	351	706	25
1902	358	364	722	25
1903	383	381	764	29

Number of Pupils Belonging to the Evening Drawing Schools, with the Average Attendance.

1898	1899	1900	1901	1902	1903
182 99	194 99	184 99	193 97	220 114	187 98

Number of Pupils Belonging to the Evening Schools, with the Average Attendance.

1898	1899	1900	1901	1902	1903
1,165 494	1,158 452	1,248 420	1,286 464	1,367 510	1,664 625

Number of Pupils in the Private Schools in Cambridge, Including those in the Parochial Schools.

1898	1899	1900	1901	1902	1903
2,637	2,713	3,004	3,439	3,451	3,711

Number of Age and Schooling Certificates Issued.

1898	1899	1900	1901	1902	1903
291	324	380	387	507 *354	565 *655

* Issued to minors over sixteen years of age, in accordance with the law of 1902.

Cost of Instruction from 1840 to 1874.

[In obtaining the cost per pupil for these years the number of pupils belonging to the schools in December has been used, as the average number cannot be obtained.]

Year	Number of Teachers	Number of Pupils	Whole Cost	Cost per Pupil
1840	20	1,388	$6,747 00	$4 86
1841	22	1,635	7,309 67	4 47
1842	23	1,871	8,374 32	4 47
1843	28	1,918	9.003 00	4 69
1844	31	2,000	9,609 75	4 80
1845	37	2,151	11,558 37	5 37
1846	38	2,227	12,940 00	5 81
1847	39	2,228	14,025 00	6 29
1848	43	2,408	16,996 42	7 05
1849	46	2,561	18,900 00	7 37
1850	49	2,597	20,025 00	7 71
1851	54	2,738	21,925 00	8 00
1852	58	2,929	23,125 00	7 89
1853	61	2,966	24,225 00	8 16
1854	62	3,047	27,216 55	8 93
1855	64	3,196	28.325 50	8 86
1856	70	3,289	29,425 00	8 94
1857	72	3.366	32.885 00	9 76
1858	78	3,744	34,075 00	9 10
1859	84	4,145	36.300 00	8 75
1860	88	4,417	37,550 00	8 50
1861	92	4,589	39,300 00	8 56
1862	93	4,851	39,650 00	8 17
1863	99	5 077	42,425 00	8 37
1864	105	5,277	56,675 00	10 74
1865	108	5,335	71,350 00	13 37
1866	115	5,578	75,975 00	13 62
1867	125	5,864	82,900 00	14 13
1868	134	6,167	91,400 00	14 82
1869	137	6,187	95,650 00	15 45
1870	145	6,483	105.250 00	16 23
1871	156	6,840	125,650 00	18 36
1872	165	7,133	137,900 00	19 33
1873	172	7,379	143,000 00	19 46
1874	184	7,816	157,550 00	21 35

Cost of Instruction in the Day Schools.

[Salaries of teachers, superintendent, supervisor, agent, clerks, and truant officers.]

Year	Number of Teachers in December	Average Number of Pupils	Whole Cost	Cost per Pupil
1876	176	7,066	$164,818 00	$23 32
1878	173	7,028	136,491 20	19 42
1880	182	7,175	130,371 75	18 17
1882	200	7,898	137,328 55	17 38
1884	216	8,414	152,290 62	18 09
1886	233	9,218	165,277 42	17 92
1888	241	9,756	175,773 80	18 02
1890	263	10,089	190,558 21	18 89
1892	284	10,861	207,144 22	19 07
1894	312	11,166	228,873 48	20 50
1896	337	11,957	245,104 01	20 50
1898	364	12,907	268,182 97	20 78
1900	409	13,816	326,512 34	23 63
1902	417	14,244	343,787 00	24 14
1903	428	14,397	349,179 80	24 25

Cost of the Day Schools.

[This includes the cost of instruction, of text-books and supplies, of incidental expenses, of the care of truants, of the care and *repair of schoolhouses, and of the transportation of pupils.]

Year	Number of Teachers in December	Average Number of Pupils	Whole Cost	Cost per Pupil
1876	176	7,066	$200,894 09	$28 43
1878	173	7,028	162,437 77	23 11
1880	182	7,175	153,967 56	21 45
1882	200	7,898	166,230 52	21 04
1884	216	8,414	203,234 56	24 15
1886	233	9,218	207,536 46	22 51
1888	241	9,756	225,408 57	23 10
1890	263	10,089	241,980 84	23 98
1892	284	10,861	266,651 02	24 55
1894	312	11,166	287,137 37	25 72
1896	337	11,957	316,090 83	26 44
1898	364	12,907	345,566 30	26 77
1900	409	13,816	417,554 00	30 22
1902	417	14,244	427,356 71	30 00
1903	428	14,397	429,554 39	29 84

Cost of Instruction in the Evening Schools.

Year	Elementary	High	Drawing	Total
1900	$3,375 00	$1,874 00	$1,430 00	$6,679 00
1901	2,777 50	1,551 75	1,205 00	5,534 25
1902	3,218 50	1,682 75	1,298 00	6,199 25
1903	5,000 50	1,683 00	1,428 00	8,111 50

* In accordance with the statutory definition of the support of public schools, the repair of schoolhouses is not included in the cost of the schools this year and will not be in the future.

Finances.

(For the financial year ending December 1, 1903.)

Cost of instruction in day schools	$349,179 80
Cost of instruction in evening schools	8,111 50
Cost of care of buildings, day schools	61,074 34
Cost of care of buildings, evening schools	1,701 73
Cost of text-books and supplies, day schools	15,501 82
Cost of text-books and supplies, evening schools	383 04
Expended for care of truants	1,786 22
Expended for flags	99 28
Expended for incidentials	1,603 93
Expended for transportation of pupils	309 00
Expended on Washington schoolhouse	19,137 41
Expended on Kelley schoolhouse	59,980 67
Expended on Fletcher schoolhouse	31,025 35
Expended for furniture	3,817 81
Expended for permanent improvements, $6,654 36, and ordinary repairs, $9,171 91	15,826 47
	$569,538 37
Deducting from the above the amount received from the Hopkins Fund, $669 10, the tuition of State Wards, $1,925.50, the tuition of non-resident pupils, $6,809.25, the amount received from sales of and damages to books, $517 44, and the amount received from sales of schoolhouses and materials, $20,182.50	29,203 79
The actual cost of the schools to the city is	$540,334 58
Assessed value of real and personal estates, May, 1903	$104,771,910 00
Ratio of expenditure for school purposes to the valuation of 1903	.0053

Summary of the School Census for September, 1903.

Number of children in the city between five and fifteen, boys, 7,725; girls, 7,787	15,512
Number in public schools between five and fifteen	12,069
Number in private schools between five and fifteen	2,899
Number not attending school between five and seven	227
Number not attending school between seven and fourteen	96
Number not attending school between fourteen and fifteen	221
Whole number not attending school between five and fifteen	544
Number in the city between five and six	1,725
Number in the city between seven and fourteen, boys, 5,259; girls, 5,391	10,650

TABULAR VIEW.

DECEMBER 31, 1903

Prepared by the Secretary of the School Committee.

Names of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1903
Latin	William F. Bradbury	$3,000	506
	Theodore P. Adams	2,000	
	John I Phinney	2,000	
	Max Benshimol	1,700	
	Helen M. Albee	950	
	Constance Alexander	950	
	Mary A. Bachelder	950	
	Alice C. Baldwin	950	
	Almira W. Bates	700	
	Margaret S. Bradbury	700	
	Isabel S. Burton	950	
	Alice D. Chamberlain	750	
	Grace C. Davenport	600	
	Etta L. Davis	800	
	Caroline Drew	950	
	Mary C. Hardy	950	
	Rose Hardwick	950	
	Mabel E Harris	950	
	Helen W. Munroe	950	
	Louisa P. Parker	950	
	Lena G. Perrigo	950	
	Ethel V. Sampson	800	
	Jennie S. Spring	950	
	*Annie S. Dodge	600	
English High	Ray Greene Huling	3,000	579
	Edwin L. Sargent	2,000	
	Francis L. Bain	900	
	Joseph A Coolidge	1,600	
	Russell T. Greene, Jr.	1,600	
	Grace L. Deering	1,200	
	Caroline Close	950	
	Bertha L Cogswell	950	
	Gertrude H. Crook	950	
	Mary L. Cunningham	750	
	Esther S Dodge	950	
	Agnes B. Goerwitz	850	
	Katherine H. James	750	
	Jeannie B. Kenrick	800	
	Maud A Lawson	950	
	Henrietta E McIntire	950	
	Mary Moulton	950	
	Lillian C. Rogers	950	
	Caroline A. Sawyer	950	
	Emma A Scudder	950	
	Florence W. Smith	950	
	Martha R. Smith	950	
	Delia M. Stickney	1,200	
	Annie F. Stratton	800	
	*Martha L. Babbitt	600	

* Secretary and Librarian.

TABULAR VIEW — Continued.

Names of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1903
Rindge Manual Training...	Charles H Morse.....	$3,000	321
	Myra I. Ellis.....	1,300	
	Helen W. Metcalf.....	950	
	Mabel D. Watson.....	750	
	Richard H Gallagher.....	1,100	
	Evan J. Griffiths.....	1,000	
	Lewis D. Hill.....	1,400	
	John M. Hussey.....	1,200	
	James E. MacWhinnie.....	1,100	
	Edward R. Markham.....	1,500	
	Joseph M. Norton.....	1,100	
	Harry E. Rich.....	800	
	Walter M. Smith.....	1,200	
	James G. Telfer.....	1,500	
	Albert L. Ware.....	1,200	
	John W. Wood, Jr.....	1,400	
	*Lillian W. Hyde.....	600	
Agassiz, Grammar.....	Maria L. Baldwin.....	1,000	146
Agassiz, Primary.....	Edith C. Arey	700	118
	Nellie B. Blodgett.....	550	
	Addie B. Byam.....	700	
	Frances W. Dawson.....	700	
	Lillian G. Goodwin.....	700	
	Mary A. Parsons.....	700	
	Grace C. Stedman.....	700	
Boardman, Primary.....	Elizabeth J Karcher.....	790	360
	Mabel E. Blake.....	700	
	Harriette G. Gilmore.....	550	
	Malvina M. Joslin.....	700	
	Maud E. Kimball.....	700	
	Jennie B. Ross.....	450	
	Elizabeth A Stevens.....	500	
	Lucy A. Witham.....	600	
Cushing, Primary.....	Maude A. Deehan.....	760	75
	Margaret E. Sheehan.....	550	
Dunster, Primary.....	Susan E. Wyeth.....	760	67
	Mary A. Doran.....	700	
Ellis, Grammar.....	Edward O. Grover.....	2,000	515
	Nellie A. Hutchins.....	900	
	Caroline L. Blake.....	800	
	Adelaide G. Bunker.....	750	
	Emma A. Faulkner.....	700	
	Harriet Foster.....	700	
	Lottie L. Griswold.....	700	
	Louise H. Griswold	700	
	Ellen J Hunt	700	
	Flora C. Ingraham	700	
	Ida J. Mahoney.....	450	
	Sarah W. Mendell.....	700	
	Mary A. Stephenson.....	700	
	Josephine C. Wyman.....	650	
Felton, Primary	C Florence Smith.....	720	162
	Marcia R Bowman	700	
	S. Emma Davis.....	700	
	Carrie H. Smith.....	700	

* Secretary and Librarian.

Tabular View — Continued.

Names of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1903
Gannett, Primary	Mary A. Rady	$775	193
	Annie M. Billings	700	
	Margaret F. Sanderson	600	
	Gertrude T. Sullivan	550	
Gore, Primary	Frances E. Pendexter	810	426
	Charlotte A. Callahan	600	
	Katherine L. Dolan	700	
	Mary L Dolan	700	
	Minnie A. Doran	700	
	Kate A. Hegarty	700	
	Mary A. Hurley	700	
	Katherine L McElroy	700	
	Julia G. McHugh	700	
	Mary E Mulloney	700	
	Anastasia Peters	700	
	Nora E Reardon	600	
Harvard, Grammar	Thomas W. Davis	2,000	799
	Margaret B Wellington	900	
	Harriette F Sawin	800	
	Annie M. Street	750	
	Addie L. Bartlett	700	
	Winifred V. Cobb	700	
	Nellie A. Coburn	700	
	Frances Fabyan	700	
	Margaret M Fearns	700	
	Estella J. French	700	
	Annie B. Lowell	700	
	Josephine MacDonald	650	
	Bernice E. Mayhew	550	
	Waitie M. Nash	650	
	Laura L Parmenter	700	
	Louise C. Patterson	700	
	Annie L Prince	600	
	Elizabeth L. Setchell	700	
	Grace P. Thomas	600	
	Hortense O. Young	700	
Holmes, Primary	Lucy C. Wyeth	760	87
	Marianne Webb	700	
Kelley, Grammar	Everett L Getchell	2,000	431
Kelley, Primary	Ella S. Danforth	900	244
	Josephine Day	700	
	Maude M. Dutton	650	
	Lucy M. Fletcher	700	
	Anna E Grotè	450	
	Jennie C. Hardy	650	
	Emma J. Houlahan	550	
	Maude A. Johnston	500	
	Ellen A. Kidder	700	
	Ella M. Leaver	700	
	Catherine A McLean	700	
	Ethel I Murch	650	
	Eva G. Oakes	700	
	Esther D Paul	700	
	Carrie L. Power	650	
	Mary E. Regan	650	

Tabular View — Continued.

Names of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1903
Lassell, Primary	Frances E. Whoriskey	$770	162
	Rose V. Collier	700	
	Elizabeth B. Gahm	700	
	Mary E. Whoriskey	700	
Lowell, Primary	Eusebia A. Minard	765	60
	Agnes J McElroy	700	
Merrill, Primary	Louise W. Harris	745	257
	Julia M. Davis	600	
	Henriette E. de Rochemont	700	
	Daisy E. Haynes	600	
	Marion B Magwire	700	
	Nellie S. Walker	700	
Morse, Grammar	Mary A Townsend	2,000	550
Morse, Primary	Mary E. Towle	900	220
	Marcia E. Ridlon	750	
	Ida J. Holmes	700	
	Elizabeth J. Baldwin	700	
	Christina R Denyven	700	
	Ida M. Holden	600	
	Florence E Hunter	700	
	Grace H. Manter	700	
	Alice E. May	700	
	Helen Montague	600	
	Anna A. O'Connell	650	
	Ella M. Pinkham	700	
	Elizabeth H. Richards	700	
	Emilie F. Richardson	700	
	Mary E. Sawyer	700	
	Lucy M. Soulée	700	
	Mary E. Warren	700	
Otis, Primary	Ellen N. Leighton	785	288
	Frances Allen	700	
	Anna E. Callahan	700	
	Josephine M Doherty	700	
	Luella M. Marsh	700	
	Anna N. Sullivan	550	
	Margaret Sullivan	700	
	Ellen C. Walsh	700	
Parker, Primary	Mary A. Knowles	780	284
	Charlotte E Clapp	700	
	Mattie S Cutting	700	
	Harriet R Harrington	700	
	Agnes Marchant	700	
	Mary E. Mullins	450	
	Mary E. White	500	
Peabody, Grammar	Frederick S. Cutter	2,000	371
Peabody, Primary	Charlotte A. Ewell	900	137
	Mabel R. Coombs	750	
	Mary H. Ellis	750	
	Susan C Allison	700	
	Anna F. Bellows	700	
	Gertrude D Brooks	500	
	Katherine L. Carr	650	
	Ruth D Foxcroft	450	
	Helen E. Hazard	700	
	Martha A Parker	600	

Tabular View — Continued.

Names of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1903
Peabody, Continued	Bertha L. Stratton	$450	
	Dora Trefethen	650	
	Alice M. Tufts	700	
Putnam, Grammar	Frederick B. Thompson	2,000	647
	George B. Colesworthy	1,000	
	Eliza M. Hussey	900	
	Eliza S. Paddack	800	
	Grace Clark	750	
	Mary A. Carmichael	700	
	Anna L. P. Collins	700	
	Sarah M. Grieves	700	
	Hattie L. Jewell	700	
	Annie B. Josselyn	700	
	Mary A. Macklin	500	
	Marcia L. Marple	700	
	Katharine I. Nicolson	700	
	Margaret F. O'Keefe	600	
	Annie A. Trelegan	700	
	Minnie F. Wilson	600	
Reed, Primary	Margaret T. Burke	770	158
	Elizabeth G. Nelligan	600	
	Julia A. Robinson	700	
	Clara W. Ruggli	600	
Riverside, Primary	Elizabeth A. Tower	770	147
	Amanda M Alger	700	
	Mary A. Burke	700	
	Hattie A. Thayer	550	
Roberts, Grammar	W. Mortimer MacVicar	2,000	540
	Sara A. Bailey	900	
	Emily R. Pitkin	750	
	Susan M. Adams	700	
	Mary Blair	700	
	Elizabeth M. Breslin	550	
	Mary M. Brigham	700	
	Susan L. Keniston	700	
	Evelyn B. Keuney	700	
	Ada M. Litchfield	700	
	Nina M. Marsh	700	
	Clara E. Phinney	500	
	Ida G. Smith	700	
	Caroline M. Williams	700	
Russell, Grammar	Arthur C. Wadsworth	2,000	338
Russell, Primary	Alice G. Teele	900	137
	Carrie J. Allison	700	
	Fannie P. Browning	700	
	Ella E. Buttrick	700	
	Mary A Connelly	700	
	Anna M. Lyons	500	
	M Ursula Magrath	600	
	H. Maud McLean	700	
	Louise I. MacWhinnie	450	
	Gertrude E. Russell	700	
	Loretta L. Shaw	700	
Sargent, Primary	Elmira F. Hall	720	201
	Katherine A. Gaskill	600	
	Marion Prescott	700	

Tabular View — Continued.

Names of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1903
Sargent, Continued	Emma G. Wentworth	$500	
Shepard, Grammar	Evelyn J. Locke	900	205
Shepard, Primary	Corabelle H. Bates	600	114
	Mary F. Calnane	700	
	Florence M. Dudley	700	
	Alice M. Gage	700	
	Mary M. Gilman	700	
	Theresa H. Mahoney	700	
	Ellen O'Keefe	550	
Sleeper, Grammar	A. Estelle Ingraham	900	121
Sleeper, Primary	Emily Bissell	700	168
	Butella E. L. Conland	700	
	Evelyn M. Dormer	700	
	Elizabeth O. Haynes	600	
	Melissa M. Lloyd	700	
	Margaret E. Quinn	550	
	Blanche E. Trefethen	700	
Stearns, Primary	Fannie E. Higgins	770	180
	Maria J. Bacon	700	
	Ellen A. Cheney	700	
	Eva A. Taylor	700	
Tarbell, Primary	Emma J. Young	770	179
	Florence J. Alley	700	
	Carrie P. Pierce	700	
	Anna H. Welsh	550	
Taylor, Grammar	Ella R. Avery	900	136
Taylor, Primary	Mary A. Boland	700	282
	Bridget T. Boyle	700	
	Lillian M. Canty	700	
	Lillian W. Davis	500	
	Bertha V Jameson	650	
	Cecilia F. Leahy	700	
	Mary A. Maguire	450	
	Eleanor M Stevens	500	
	Mabelle S Welsh	600	
Thorndike, Grammar	Ruel H. Fletcher	2,000	534
	Harriet A. Townsend	900	
	Mary E Nason	800	
	Laura A. Westcott	750	
	Flora E. Cooter	500	
	Jennie W. Cronin	500	
	Grace W Fletcher	700	
	Margaret J. Griffith	500	
	Harriet M. Hanson	700	
	Emma A. Hopkins	700	
	Lillian H. Kenney	550	
	Ellen M. Plympton	700	
	Susan L. Senter	700	
	Lydia A. Whitcher	700	
Washington, Grammar	John W Freese	2,000	420
	Blanche E. Townsend	900	
	Alice P. Fay	750	
	Katharine F Callahan	500	
	Eldora J. Clark	700	
	Mary L. Ells	700	
	Helen G. Fulton	600	

Tabular View — Continued.

Names of Schools	Teachers	Salaries	No of Pupils Dec. 31, 1903
Washington, Continued...	Winifred L. Kinsley	$700	
	Emma Penney	700	
	Margaret J. Penney	700	
	Bessie H. Pike	700	
	Hattie Shepherd	700	
Webster, Grammar	John D. Billings	2,000	754
	George L Farley	1,300	
	Alice C. Phinney	900	
	Martha N. Hanson	800	
	Ada A. Billings	750	
	Mabel T. Ashley	700	
	Charlotte M. Chase	700	
	Fanny F. Curtis	700	
	Susan I. Downs	700	
	Gertrude B. Duffy	600	
	Josephine Hills	700	
	Gertrude I. Johnson	700	
	Minnie V. Reid	700	
	Harriette E. Shepard	700	
	Olive L. Slater	700	
	Maud A. Sumner	700	
	Ellen F. Watson	700	
	Katherine L Wight	650	
Wellington, Grammar	Herbert H. Bates	2,500	421
Wellington, Primary	Sarah J. Gunnison	1,000	332
	Margaret Kidd	1,000	
	Mary I. Vinton	1,000	
	Carrie H. Stevens	900	
	Grace F Chamberlain	650	
	Training Class	8,829	
Willard, Primary	Katharine E. Hayes	810	568
	Sally N. Chamberlain	700	
	Elizabeth M. Crowley	550	
	M Elizabeth Evans	700	
	Ella F. Gulliver	700	
	Julia S. Gushee	700	
	Mary E G. Harrington	700	
	Katherine M. Lowell	700	
	Mary A. O'Hara	650	
	Belle Menard	700	
	Gertrude S. Thayer	450	
	Eliza D. Watson	700	
	Grace R. Woodward	700	
Wyman, Primary	*M. Carrie Dickman	780	231
	Addie M. Bettinson	700	
	Mary H Brooks	700	
	Georgianna P Dutcher	700	
	Genevieve S. Flint	700	
	Agnes Ross Smith	600	
Kindergartens. Boardman	Mary B. Pratt	700	54
Boardman	Hattie P Russell	600	
Corlett	Sarah S. Wells	700	43
Corlett	Annie M. Dodd	600	
Dunster	Clara A. Hall	700	27
Gannett	Carrie E. Shepherd	700	50
Gannett	Marion L. Akerman	600	

* Died January 28, 1904.

Tabular View — Concluded.

	Names of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1903
Kindergartens	Gore	Selma E. Berthold	$700	56
		Freedrica Mark	450	
	Lowell	Melinda Gates	700	41
		Annie L. Crane	450	
	Merrill	Caroline A. Leighton	700	61
		Gretchen K. Hager	600	
	Peabody	Julia L. Frame	700	40
		Irene L. Phelps	450	
	Riverside	Edith L. Lesley	700	59
		Olive M. Lesley	600	
	Shaw	Harriette E. Ryan	700	59
		Leonice S. Morse	600	
	Sleeper	Mabel S. Adams	700	61
		Caroline E. Simpson	600	
	Taylor	Mary F. Leland	700	62
		Della E. Cabot	500	
	Wellington	Gertrude M. Gove	700	50
		Florence Rice	600	
	Willard, A. M.	Alice V. McIntire	700	50
		Anna M. Gage	500	
	Willard, P. M.	Jennie S. Clough	650	51
		Eva C. Katon	450	

Teachers of Sewing — Agnes Gordon	$700
Alice H. Nay	600
Nancy T. Dawe	600
Director of Music — Frederick Elmer Chapman	2,000
Assistant in Music — Georgia E. Martin	800
Director of Drawing — Peter Roos	1,900
Assistant in Drawing — Lucia N. Jennison	800
Director of Nature Study — Sarah E. Brassill	1,000
Director of Physical Training — Sara E. Boudren	900
Instructor of Physical Training in the High Schools — Bessie W. Howard	750
Superintendent — Francis Cogswell	3,500
Supervisor of Primary Schools — Mary A. Lewis	1,200
Agent — Sanford B. Hubbard	2,100
Clerks — Althea B. Frost	750
Myrta E. Smith	700
Porter — John Lemon	600
Truant Officers — Lucian S. Cabot	1,000
John Carmichael	1,000
William H. Porter	1,000
Thomas F. Riley	1,000

Summary.

Number of pupils in Latin School	506
Number of pupils in English High School	579
Number of pupils in Rindge Manual Training School	321
Number of pupils in Grammar Schools	6,928
Number of pupils in Primary Schools	5,837
Number of pupils in Kindergartens	764
Total	14,935
Number of pupils belonging to the public schools December 31, 1902	14,747
Increase of pupils, 1903	188
Increase of pupils, 1902	253
Increase of pupils, 1901	62
Increase of pupils, 1900	332
Increase of pupils, 1899	314
Increase of pupils, 1898	476
Increase of pupils, 1897	422
Increase of pupils, 1896	714
Increase of pupils, 1895	250
Increase of pupils, 1894	278
Increase of pupils, 1893	135
Increase of pupils, 1892	210
Average annual increase of pupils from 1892 to 1902 (inclusive)	313

Cost of Instruction.

Schools and Officers	Cost of Instruction	Average Number of Pupils	Cost per Pupil
Latin School	$25,472 00	474	$53 74
English High School	27,109 83	493	54 99
Manual Training School	21,125 50	262	80 63
Training School (Teachers)	15,429 50	894	17 26
Grammar Schools (except Training School)	129,926 92	6,222	20 88
Primary Schools (except Training School)	87,764 29	5,364	16 36
Kindergartens	17,503 26	688	25 44
Teachers of Sewing	1 900 00	....	....
Directors of Music	2,800 00	....	....
Directors of Drawing	2,644 00	....	....
Director of Nature Study	1,000 00	....	....
Directors of Physical Training	1,615 00	....	....
Substitute Teachers	2,139 50	....	....
Superintendent	3,500 00	....	....
Supervisor of Primary Schools	1,200 00	...	....
Agent	2,100 00	....	....
Clerks	1,380 00	....	....
Truant Officers	3,970 00	....	....
Porter	600 00	...	....
Total	$349,179 80	14,397	$24 25

Cost of instruction in Evening High School	$1,683 00
Cost of instruction in Evening Elementary Schools	5,000 50
Cost of instruction in Evening Drawing Schools	*1,428 00
Total	$8,111 50

*The Director of Drawing is principal of these schools. No part of his salary has been included in this amount.

REMARKS ON THE STATISTICS.

The number of pupils registered in the day schools during the year ending June, 1903, is 16,394; the average number belonging, 14,397; the average daily attendance, 13,250. In the per cent of attendance there has been a decrease of eight-tenths of one per cent. The number belonging to the schools in December, 1902, was 14,747; in December, 1903, 14,935, an increase of 188. The cost of instruction, which includes the salaries of teachers, superintendent, supervisor, agent, clerks, and truant officers, is $349,179.80. The total cost of the day schools, which in accordance with the statutory definition of the support of schools includes the cost of instruction, of text-books and supplies, of incidental expenses, of the care of truants, of the care of schoolhouses, and of the transportation of pupils, is $429,554.39.

The average attendance at the evening schools during the school year 1902–1903 was 793, an increase of 99, and the number of teachers, including the principals, was 58. The total cost of these schools, which includes the salaries of teachers, the cost of text-books and supplies, of fuel, light, and salaries of janitors, is $10,196.27.

While Cambridge expends a large amount for her schools, there are *two hundred thirty-one* towns and cities in the State which make a larger expenditure in proportion to their wealth. In a list of the thirty-three cities, arranged numerically according to the percentage of their taxable property appropriated to the support of public schools for the year 1902–1903, Cambridge is the *twenty-fourth.* In a list of the towns and cities of the State, arranged numerically according to the sum appropriated for each child in the average membership of the public schools, Cambridge is the *thirty-sixth.*

These statistics relating to the schools of the State are taken from the sixty-seventh annual report of the State Board of Education.

TEXT-BOOKS AND SUPPLIES.

At a meeting of the Board in December the committee on supplies submitted a detailed report of the expenditures of that committee for the year. The report is as follows: —

In accordance with Section 30 of the Rules of the School Board, the Committee on Supplies submits its nineteenth annual report, it being for the year ending July 1, 1903: —

Stock on hand July 1, 1902	$4,712 97	
Purchases and expenditures to July 1, 1903	20,693 64	
		$25,406 61
Cash sales and damages	$567 44	
Delivered to schools, officers, etc.	19,163 38	
		19,730 82
Stock on hand July 1, 1903		$5,675 79

The purchases and expenditures have been: —

For text-books	$6,041 98	
Desk and reference books	223 23	
Copy books	674 83	
Apparatus and furnishings	2,574 12	
Printing, $161.50; expressage and labor, $430.59	592 09	
Repairing books, $674.71; diplomas, $195.63	870 34	
Tuning pianos	24 25	
Miscellaneous supplies, etc.	9,370 58	
		$20,371 42
Less the value of exchanges		43 75
		$20,327 67

The net cost of text-books and supplies is as follows: —

Stock on hand July 1, 1902	$4,712 97	
Bills paid by City Treasurer	20,327 67	
		$25,040 64
Less stock on hand July 1, 1903	$5,675 79	
Cash paid to City Treasurer, sales and damages	567 44	
		6,243 23
We have, net cost of all schools and officers		$18,797 41

or an average cost per pupil of $1.306. The average cost per pupil per annum for nineteen years has been $1.265.

The annual cost per pupil for text-books and supplies since the introduction of the free text-book law is as follows: —

Year	Cost per Pupil	Year	Cost per Pupil	Year	Cost per Pupil
1885	$1.880	1892	$1.149	1898	$1.268
1886	1.170	1893	1.109	1899	1.225
1887	1.051	1894	1.243	1900	1.740
1888	1.068	1895	1.152	1901	1.203
1889	0.960	1896	1.436	1902	1.400
1890	1.334	1897	1.094	1903	1.306
1891	1.248				

The cost of each grade of schools for text-books and supplies is as follows: —

	Net Expenses	Cost per Pupil				
		1903	1902	1901	1900	1899
Latin School	$1,641 32	$3.463	$3.990	$3.935	$6.804	$3.245
English High School	1,757 09	3.564	3.641	4.236	4.642	3.888
Manual Training School.	4,399 34	16.791	11.564	11.707	13.515	.....
Training School, teachers	593 76	.664	.707	.704	.....	.....
Grammar Schools	4,394 30	1.070	1.152	1.068	1.747	1.476
Mixed Schools	3,022 32	.907	1.140	.933	1.573	1.001
Primary Schools	1,571 40	.379	.528	.431	.396	.425
Kindergartens	294 19	.428	.630	.329	.692	.303
Evening Schools	383 04	.....	.....	.....	.....	.....
Special Teachers	73 61	.....	.....	.....	.....	.....
Officers of Board	141 04	.....	.....	.....	.....	.....
Miscellaneous expenses (not chargeable to any grade)	547 75	.....	.....	.....	.....	.....
	$18,819 16					
Less profit on sales	21 75	.....	.....	.....	.....	.....
	$18,797 41	$1.306	$1.400	$1.203	$1.740	$1.225

The considerable decrease in the cost of text-books is because fewer new books were introduced and also because the expectation of a change in the text-books in language and geography led the agent to defer as far as possible replacing that class of books as usual. Partly for the same reason more books than usual have been repaired. The expenditures for new books next year will be correspondingly increased. The large increase is in the item miscellaneous supplies and is due partly to the higher cost of paper and partly to the fact that less paper than usual was on hand July 1, 1902.

Last year $2,000 was asked for in addition to the regular appropriation for text-books and supplies in order to procure additional lathes for the Rindge manual training school. This was made a separate item in the estimates as these lathes were needed especially to accommodate the Lawrence scientific school students who use the school in July and for whose tuition the college pays each year almost enough to cover this outlay. This past year $1,808 was so received. This expenditure had to be made in the opinion of the committee on high schools and this committee, and the school board at the request of these two committees has asked, hitherto in vain, that the revenue so received should be appropriated for this purpose, in addition to the regular appropriation from the tax levy.

On the usual basis, taking the number of pupils in the schools December 1, 1903, the cost of ordinary text-books and supplies is estimated at $18,892.78 for the current financial year. In addition to this, two new schools will have to be supplied with apparatus, desk and reference books, etc. One new piano should be bought for the Washington school and two for the Kelley school, one for the hall and one for the kindergarten, at a total cost of $1,000, and three sloyd outfits. As noted above, the cost of the new geographies and language books will also add about $2,800 to the expenses. The appropriation required for the purchase of text-books and supplies during next year should be $24,000, exclusive of any bills which the city auditor may have carried over from last year.

This committee has also the duty of providing flags and flagstaffs when needed, and estimated last year $200 for this purpose. As the appropriation was only $100, of which $99 was spent, many things had to be left uncared for. The estimate for next year is $300.

The committee on supplies wishes to commend in the highest terms the efficiency of the agent whose economy and accuracy in the purchase and care of the text-books and supplies has in its opinion been of very great advantage to the public schools and to the treasury of this city.

CHANGES IN TEXT-BOOKS.

The following is the rule relating to the changes in text-books: — "All propositions for changes in text-books shall be made by the superintendent. Whenever he recommends a change he shall appoint two persons, one of whom shall be a teacher in the service of the city, who shall make written reports on the merits of the books recommended. These reports and a like report by the superintendent shall be kept on file in the office of the superintendent, open to inspection by members of the Board only. All changes of text-books recommended to the Board shall be referred to the committee on text-books."

Under this rule the following text-books have been adopted by the Board during the year 1903: —

For use in the Latin school, Botsford's Ancient History for Beginners.

For use in the English high school, the Miller Reading and Dictation Book written in Gregg Shorthand.

For use in the Rindge manual training school, Robert Hart Bradbury's Elementary Chemistry; Jackson's Elementary Electricity and Magnetism.

For use in the grammar schools, Dunton and Kelley's Inductive Course in English; Southworth's New Lessons in Language; Southworth's English Grammar and Composition; Frye's Elements of Geography; Frye's Grammar School Geography; the Natural Elementary Geography; the Natural Advanced Geography.

SCHOOL ACCOMMODATIONS.

The following is from the report presented by the committee on schoohouses: —

In compliance with Section 30 of the Rules of the School Board, the Committee on Schoolhouses respectfully submits the following: —

During the year 1902–1903 one schoolhouse has been completed and another begun, and two have been sold.

The schoolhouse on Willow street, which was begun considerably more than a year ago, is completed and was occupied for the first time October 2. It has been named the "Kelley School" in honor of the late Joseph J. Kelley.

The building is of brick with granite base, terra cotta trimmings, and galvanized iron cornices. It contains a hall, sixteen class rooms, rooms for office, storeroom and teachers' rooms, a library, and has ample sanitary arrangements. It is well arranged, well lighted, and the provisions for heating, ventilation, and sanitation seem ample. When it is fully furnished it will afford excellent facilities for school work.

The teachers and pupils of the Allston school and of the Shaw kindergarten were transferred to the Kelley school which has a membership of nineteen teachers and seven hundred thirty-four pupils, comprising a kindergarten and all the grades of the primary and grammar schools. In accordance with a vote of the school committee, the Shaw kindergarten will retain its name in honor of Mrs. Quincy A. Shaw, who established and maintained a number of kindergartens in Cambridge at her own expense for many years.

A schoolhouse is in process of building on the land bought last year on Elm street. It is of brick with sandstone sills and wooden cornices. It has been named the "Fletcher School" in honor of Ruel H. Fletcher, master in the Thorndike school since December, 1857. It is designed to contain a hall, fifteen class rooms, a principal's room, teachers' rooms, and a storeroom.

The opening of the Kelley school relieved the pressure under which the Harvard, Wellington, and Roberts schools have labored for several years. When the Fletcher school is completed there will be ample

accommodations for the pupils in that section of the city. The need of additional rooms for the rapidly growing school population in the section of the city comprising Wards Six and Seven is becoming urgent. This need will be supplied by the proposed schoolhouse on the "Mill Pond" lot, though arrangements should be made for building a primary schoolhouse on the Dana lot on Centre street in the near future.

JANITORS.

Section 31 of the city charter provides that "The mayor shall appoint the janitors of schoolhouses, subject to confirmation by the school committee, and may remove them at pleasure for cause assigned; and such janitors shall perform their duties under the direction of the school committee."

Under the direction of the committee on schoolhouses, the agent supervises and directs the work of the janitors, and reports to the committee such matters as seem to need consideration. The principals of the schools report each month whether or not the work is done in a satisfactory manner.

The following is from the report of the committee on schoolhouses: —

Early in the year, John J. Roach, janitor of the Peabody schoolhouse, was appointed head janitor. His work during the year has been highly satisfactory. The work of the janitors has been more closely supervised, the repairs and the heating and plumbing in the new buildings have been watched very closely by him and in many instances have been much improved on his suggestions. He takes the place of Edward B. Dale in supervising the heating of the schoolhouses. He has shown himself not only an experienced janitor in the cleaning and care of the buildings, but an expert in the installing of plumbing and heating apparatus.

The work of the janitors, with some exceptions, has been satisfactory. The standard of work of the janitors is being gradually raised, and the men appointed this year promise to keep up to the standard.

In Memoriam

FRANK A. HILL
September 12, 1903

Head Master of the English High School
1886 — 1893

Secretary of the State Board of Education
1894 — 1904

JAMES S. BARRELL
February 5, 1904

Master of the Putnam School
1874 — 1881

Master of the Harvard School
1881 — 1901

FLORENCE A. ROGERS
May 11, 1903

Principal of the Felton School
1892 — 1903

M. CARRIE DICKMAN
January 28, 1904

A teacher thirty-five years

Principal of the Wyman School
1898 — 1904

IN MEMORY OF HON. FRANK A. HILL.

[Mr. Hill was Head Master of the Cambridge English High School from 1886 to July, 1893. He was chosen Secretary of the Massachusetts Board of Education in 1894.]

The late Hon. Frank A Hill was for seven years the head master of our English high school being called to this position from the high school in Chelsea, of which he had been the principal for sixteen years. He entered upon his work in Cambridge at the opening of the schools in September, 1886. When the Rindge manual training school was established in 1888, the academic department came under the immediate supervision of Mr. Hill, and undoubtedly it was the interest he manifested in the work of this school that led to his appointment in 1893 to the position of head master of the Mechanic Arts high school, Boston. In 1894 he was chosen Secretary of the Board of Education.

Mr. Hill became master of the English high school at the time the Classical and English departments of our former high school were made separate schools. Under his management the school in all its interests greatly prospered. The number of pupils increased from three hundred thirty-five in 1886 to six hundred seventy-nine in 1893. A new schoolhouse was built which contains many admirable features made at his suggestion; in fact, the greater part of the internal arrangements was of his planning.

Mr. Hill's influence upon teachers and pupils was inspiring and uplifting. His work was done on a high plane. The school committee in accepting his resignation expressed their high approval of his services, referring not only to the intellectual training of his pupils but to their moral training as well.

Mr. Hill continued to reside in Cambridge, and took a deep interest in all the affairs of the city. He was highly esteemed not only by his former pupils and those who had come into close relations with him, but by the citizens at large.

It is especially fitting, therefore, that the following words of tribute selected from the many that have been written should have a permanent place in this report: —

From the Message of Governor Bates.

"The educational interests of Massachusetts have suffered a great loss in the death of Frank A. Hill, who had for nine years been the devoted and efficient Secretary of the State Board of Education. He served the State unselfishly, recognizing that in education is to be found the guaranty of the material and moral interests of our people."

From the Minutes of the Board of Education.

"Dr. Hill was a true lover of his chosen profession. To its advancement he gave the strength of careful study and earnest effort. Without self-seeking he was called to positions of great responsibility, and his work therein witnesses for better ideals and broader conceptions of popular education. His was a long, honored, and unselfish service; and in this service there was no element finer or more enduring than the manliness of Dr. Hill's own character."

From the Memorial Statement adopted by the Corporation of the Institute of Technology. Mr. Hill was a member of the Corporation both by election and by virtue of his office.

"Greater than his recorded acts was Dr. Hill's personal influence upon the thousands of teachers and pupils who came under his supervision. He was remarkably successful as a teacher, extraordinarily sympathetic as a man. He possessed, moreover, rare courtesy, unfailing optimism, and tireless enthusiasm. Therefore his presence in a schoolroom was an inspiration to both teacher and pupil. His long association with secondary education, his thorough understanding of the problems of the preparatory school, his close relations with education throughout the entire State, above all his genial wisdom and optimism, made him a most valuable accession to this Board."

From the Cambridge Tribune.

"The venerable Dr. Hale at the funeral services spoke of Mr. Hill as a man of peculiar gifts, one who was raised up to do the great work that had fallen to his hands. He had done his work well; he had advanced the cause of education in the State; he had upheld the dignity of the teaching profession; he had believed and shown that education was more than instruction; he had been an uplift and a stimulus to pupils and teachers wherever he went."

Dr. McKenzie in a paper published by the young people of his church. (Dr. McKenzie was absent from Cambridge at the time of the funeral services.)

"He was born with large natural powers, and he went on to achieve greatness. He made his own way. He first prepared for life by study, and then entered on the work which was near at hand. He was advanced because he was required for higher positions. He did not need to seek promotion. It was enough to deserve it, and to make men feel that he

was needed. He was set at last in the highest place in our system of public education, and more and more his wisdom was felt and his influence was enlarged."

Professor Hanus in the Chicago School Review.

"Dr. Hill showed admirable personal qualities and rare ability as a teacher and executive officer. Every school over which he presided felt the influence of his genial personality, his industry and conscientious devotion to duty, and his high ideals of scholarship, and was carried on in the spirit of helpful co-operation between pupils and teachers.

As Secretary of the Board of Education, he exhibited the same sterling qualities as a man and as an educational officer that marked his earlier career. His annual reports are not only useful and interesting to residents of Massachusetts, but are among the most important contributions to contemporary educational literature.

Dr. Hill's life was full of activity. Tireless industry and devotion to duty were prominent characteristics of his nature, and marked his private life no less than his public career."

Ray Greene Huling in "Education."

"The traits especially characteristic of Dr. Hill were his versatility in adapting himself to the various demands made upon him, his conscientious attention to details, his constant recognition of the best there was in pupils and people, his inclination toward constructive rather than destructive criticism and work, his evenness and courtesy of spirit under all conditions, his progressiveness in educational thought, side by side with a profound sympathy with teachers and a full recognition of the limitations under which they work. As a teacher he was uniformly successful and inspiring, always commanding the respect, love, and loyalty of his pupils as well as of his associate teachers. Former pupils tenderly recall how clearly he detected the possibilities in them which they themselves failed to see, and by the power of encouragement actually developed in them fine and enduring qualities of heart and mind.

Dr. Hill gave himself unreservedly to the advancement of public education, sparing not himself and using to the full his splendid opportunities. The spirit of his scholarly, true, and vigorous life has entered into countless lives, bringing to them noble enrichment and glad inspiration."

From the Milford Journal.

"Coming to Milford in the very prime of early manhood, he quickly gave evidence of the possession of those sterling qualities of mind and heart

which have ever been so abundantly manifested in all the duties and responsibilities of his long and valued service in the cause of education. To his pupils and co-workers he was always helpful and sympathetic, a genuine inspiration to better effort. We believe that no teacher ever held a warmer place in the hearts of his pupils, or commanded a more lasting affection than has been his during the nearly two-score years which have passed since his coming to Milford."

From the Cambridge Chronicle.

"Naturally, in Cambridge, we think of him first as a teacher. As principal of our English high school he held high rank, else he had never been promoted to the higher place. He was, first of all, a gentleman, in all his instincts and in all his words and acts. He had a conception of the obligation of the teacher to the pupil, as well as of the obligation of the pupil to the teacher, and he endeavored to meet his obligation. His personal influence was most salutary. He gave himself to his pupils without reserve and they appreciated it and responded giving him their heartiest affection and the best they had and were. His kindliness of spirit and manner opened for him many an avenue to a pupil's mind which would have been closed to a man of different ways.

In the larger work to which he devoted the last years of his life, he rendered the State the same valuable service which he gave to Cambridge. The Massachusetts standard set high by great educators was not lowered by him. On the contrary he was progressive, and kept himself abreast of the latest methods of the country, and was a leader in all educational movements."

From the Latin and High School Review.

"Hon. Frank A. Hill was a man to be looked up to and admired. We, his former pupils, who have benefited by his unceasing labor, realize the vast amount of good he has done. As we study his life and character we cannot but feel a new inspiration, a great desire to be more like him, to work unselfishly for others, just as he did, and to aid as much as we can in carrying on the work so nobly begun."

From the Journal of Education.

"Mr. Hill was a thoroughly public-spirited man. He considered the public good in all his plans for the development of the educational system of the State. He was a full believer in the benefit of a thorough training. He wanted a high tone in every branch of the public school administration and he labored to bring the standard up to as high a mark as possible.

It was his theory that the high school should be more than a feeder to the college. It should be a complete institution in itself. It was to extend the thoroughness of the State's educational system, that he labored to complete the system of superintendence until it was made compulsory upon every city and town in the State. It was under him that the laws for a high school education for every child were brought to their present perfection, and the State treasury was made the ultimate source of the money for the payment of the expense. Transportation of pupils, payment of tuition for the needy, financial appreciation of good teachers in towns financially weak, care for the truants and habitual school offenders; these have been some of the measures which marked his administration of nine busy years. They were advocated patiently and moderately, but persistently, and the system is now well developed in respect to those matters of detail."

From the School Journal.

"Mr. Hill was a scholarly, true, and courteous man. He possessed patience and infinite tact. His heart went out to everyone genuinely interested in the improvement of the educational opportunities afforded the young. He worked quietly, persistently, and circumspectly for the spread of his convictions, seeking his reward in the attainment of the end in view. His self-effacement was no mean factor in the wonderful success attending his varied and extensive undertakings. It was Mr. Hill's way to fix his eye steadfastly upon the accomplishment of reforms and to let personal reward go to those who aided him.'

The wise selection of teachers is of vital importance to the welfare of schools. Mr. Hill's closing words in his last annual report may well be remembered by school officials. They are as follows: —

"It should not be overlooked that the most important element in the teacher's qualifications is not to be found in academic scholarship, essential as this is, nor in the power to hold a school in order, essential also as this is, but in the rarer and finer power of leading the child to act judiciously, earnestly, and advantageously for himself in the enlargement of his executive and productive capacity, in the acquisition of knowledge and particularly of those larger underlying principals that enable him to classify and utilize knowledge, in the cultivation of a sturdy civic spirit, and in the building up of a well-rounded character."

Mr. Hill had that "rarer and finer power" as a teacher, and in his wider field of action his uplifting influence was felt in every department of educational work.

MR. JAMES S. BARRELL.

Mr. Barrell was appointed master of the Putman school, October, 1874, and was transferred to the Harvard school, April, 1881. After more than twenty years of service in the Harvard School he declined a reelection having been a teacher for fifty consecutive years, more than half of which had been in Cambridge.

At the time of his withdrawal from school his faithful service and sterling qualities were recognized by the school committee in a series of resolutions, and the community showed its appreciation of the man and of his work by banquet and gift. Mr. Barrell continued to reside in Cambridge, and to the last retained his interest in the schools and in all educational questions. At the funeral services Dr. McKenzie said: "We are here to-day to pay tribute to a teacher. He was not a mere scholar. He had a rare trait — he knew boys. He could laugh with them, sympathize with them. He always saw the cheerful side of things, and so he brightened all around him. He gave wide range to his teaching. He taught honesty, truth, virtue, and above all, patriotism. He taught boys that they should fear God and love their country. He taught them to revere the flag, not because of its colors, but because of the country beneath it. He gave to the world what it so much needs — the blessing of a truthful soul."

The school report for 1901 contains a more extended account of Mr. Barrell's connection with the schools.

MRS. ROGERS AND MISS DICKMAN.

Mrs. Florence A. (Davis) Rogers taught for two years in the Felton school before her marriage. In 1892 she returned to the work of teaching, and was made principal of the school in which she had formerly taught. This action of the committee showed the estimation in which her services were held. Mrs. Rogers performed the duties of principal wisely and judiciously and was an excellent teacher.

Miss M. Carrie Dickman was a teacher in the Reed school for five years, and was then transferred to the Wyman school. She became the principal of this school in 1898. Her whole service covered a period of thirty-five years. Miss Dickman had rare qualities of mind and heart. She taught well, she governed well, and more than this, she did it in a spirit that made her service of inestimable value. Fortunate indeed were the children who came under her influence.

At the meeting of the school committee in February the following order was made a part of its records: —

"The school committee of Cambridge records the death of Miss M. Carrie Dickman with sincere sorrow. For thirty-five years she had been

a teacher in our schools and at the time of her death was the principal of the Wyman school in North Cambridge. She was pre-eminently a successful teacher of children, a wise and tactful executive, and an inspiration for the entire teaching force of the city. In this recognition of her worth we feel sure we voice the general sentiment of the citizens of the city she has served so well and the individual opinions of those whom she has taught."

FIFTIETH ANNIVERSARY OF THE WEBSTER SCHOOL.

[The following account of the celebration of the fiftieth anniversary of the Webster School was written by the principal, Col. John D. Billings.]

A unique event in the history of the schools of Cambridge occurred at the Webster school, Wednesday, May 27. It consisted of a public celebration of the founding of the school fifty years before. The building was dedicated in March, 1854, but to assure pleasanter weather the celebration was deferred to the above date, and a beautiful day for a delightful occasion was the result. The program occupied the entire day, winding up with a banquet of the graduates at the Hotel Somerset, Boston, in the evening.

The school opened at the usual time in the morning, the public being invited to visit the various rooms and inspect the work done in drawing during the year, which had been carefully arranged on the walls. At 10.30, grades four, five, and six proceeded in turn to the assembly hall, where their representatives presented to the school two hundred twenty interesting volumes. These form the nucleus of a library for each room, accessible to the pupils in spare moments. Following these came grade seven, its spokesman presenting a large and handsome bronze urn. It was already in place in front of the building and filled with plants. Finally grade eight came to the stage, and by their representatives crowned the program of the morning by unfurling two beautiful stands of colors, the national and state, and presented them to the school as their anniversary gift. All these were accepted for the school by the principal in a few brief words.

The more formal exercises were reserved for the afternoon, and included an address of welcome by the principal, a poem by a lady graduate, and a historical address by the superintendent of schools. Then followed the presentation of two engrossed memorials suitably framed, the first bearing the names of one hundred forty-one Webster school boys who served the country in the Civil War, and the second bearing the names of twenty-eight Webster school boys who served in the war with Spain. These were accepted for the city by His Honor the Mayor and for the school by the principal.

The concluding event of the afternoon consisted in the unveiling and presenting to the school, in behalf of the younger graduates and the class of 1903, of a life-size oil portrait of the principal. This was accepted for the city and school in a letter written by Mr. Charles F. Wyman, the sub-committee in charge of the school, who was detained at home by illness.

The event was made more noteworthy by bringing to practical completion the decoration of the interior of the school building with works of art. Graduates, undergraduates, and friends subscribed twelve hundred dollars for this purpose, and the result is seen in what is probably one of the best decorated school buildings in New England.

The celebration owes its great success to the hearty accord with which parents, teachers, pupils, and graduates united in the work. They formed a constituency worthy of any school.

The superintendent will add that the Webster school is one of the larger schools in the city. For more than thirty years it has been under the charge of Mr. Billings, who entered upon his work in September, 1872. Since that time nearly one hundred different teachers have been connected with the school for a longer or shorter period, and eighteen hundred pupils have been graduated.

This anniversary occasion was one of great interest. The plans had been wisely formed and were admirably carried out. This was to be expected, for Colonel Billings has the qualities of leadership. Had he been older when he hastened to the defence of his country, there is no doubt that before the war ended he would have attained high rank as a commanding officer. The appointment which gave him his title of colonel was a recognition of brave service in the hour of his country's peril; and his record as a teacher and citizen gives proof of his scholarly attainments, his manly character, and patriotic interest in civil affairs.

CHANGES DURING THE PAST FIFTY YEARS.

[The following is from the address of the superintendent of schools given on the occasion of the fiftieth anniversary of the Webster School.]

During the past fifty years many important changes have taken place in the organization and classification of the schools of the city. Formerly they were classified as alphabet, primary, middle, grammar, and high. In 1863 the middle schools were united with the grammar, and the alphabet with the primary. March 1, 1886, the classical and English departments of the high school were made two separate schools, called respectively the "Cambridge Latin School" and the "Cambridge English High School."

In 1888 the Rindge manual training school was opened under the name of the "Cambridge Manual Training School for Boys." For ten years Mr. Rindge paid the current expenses of the manual training department, the city providing for the academic instruction. On the first of January, 1899, Mr. Rindge gave the entire plant to the city, and in accepting the gift the school committee voted that hereafter the school should be known as the "Rindge Manual Training School." The follow-

ing from the school report for 1898 gives emphasis to the importance of this gift: "The city of Cambridge has received from Mr. Rindge other valuable gifts — a public library with several acres of land, a city hall, and a site for the English high school building — but in its far-reaching influence for good is it not probable that the manual training school touching as it does young life, will prove to be the richest gift of all?"

In 1870 a training school for teachers was established. The work was carried on for several years in connection with the Riverside primary school. In 1875 it was transferred to the Agassiz school, which contained both grammar and primary grades. In 1882 it was discontinued. After an interim of two years our present training school was opened. It was named the "Wellington Training School" in honor of Dr. Wellington, whose forty years of service made it especially appropriate that a school for the training of teachers should bear his name. It differs from the grammar and primary schools in this respect — all the grades, except the eighth and ninth, are taught by young teachers. Their work, however, is done under the immediate supervision of a master and three assistants, who are held responsible for the instruction and management of the school. At the present time nearly fifty per cent of the teachers in our grammar and primary schools are graduates of this school.

In 1853 there were seven grammar schools, each under the charge of a master and one or two assistants, there being ten assistants in all. The average number of pupils attending these schools was six hundred fifty-seven. It should be stated, however, that the middle schools had not then been united with the grammar schools. Had they been, the number of pupils in the grammar schools would have been twelve hundred. The number in the grammar schools at the present time is nearly seven thousand.

Kindergartens became a part of the public school system in 1889. They had been maintained for eleven years by Mrs. Quincy A. Shaw and ladies of Cambridge interested in the work. A petition bearing sixteen hundred names led to the establishment of these schools, the value of which cannot be estimated by their cost. It has been truly said that "they mean to many a child the difference between a happy, useful life, and one of wretchedness, if not of crime."

The first evening schools in Cambridge were opened in the winter of 1851–52, and the teaching was wholly voluntary. The school committee assumed the expense of warming the rooms, but the other expenses were paid by persons who believed such schools would be of benefit to the community. Evening schools were not maintained by the city till 1868, when three were opened for men and boys. The next year provision was made for women and girls. These schools were continued for ten

years with varying success, and were then closed for three or four years. In 1884 they were again opened, the legislature having passed an act requiring all cities and towns of ten thousand inhabitants or more to maintain such schools. In 1889 an evening high school was opened. During these recent years the work in the evening schools has been broadened, and they have become an important part of the school system.

In 1870 the legislature passed an act requiring every city and town of more than ten thousand inhabitants to make provision for giving free instruction in industrial drawing to persons over fifteen years of age. In compliance with this act, evening drawing schools were opened, and with the exception of two years, have been continued to the present time. Since 1890 they have been under the supervision of the director of drawing for the day schools.

Vacation schools were started in Cambridge by a committee of ladies interested in the welfare of children. For four years they were carried on under the direction of this committee, the expense being met by private contribution. In 1899 by an act of the legislature, the school committee of any city or town was authorized to establish and maintain vacation schools. For three years these schools have been supported by the city. In 1903 they were not in session, no appropriation having been made for them. Vacation schools are not established primarily for the purpose of giving more extended opportunities for an education, but rather that children who remain in the city during the long summer vacation (and there are thousands of them) may find something to do that will both interest and profit them.

In 1845 music was introduced into four of the grammar schools as an experiment. The school committee in their report for that year refer to the results as exceeding their most sanguine expectations, and the following year music was introduced into all the schools. The committee justify their act as follows: "The advantage of music in schools is threefold. First, when taught as a science, it is fine discipline for the youthful mind, scarcely inferior to the mathematics of which, in truth, it is a branch; second, as a valuable attainment, not to say accomplishment; and third, music in schools, used as an occasional refreshment, is among the most successful methods of securing order, cheerfulness, and vigor of application in severer studies. We would like to have all the children in the smaller schools able to sing together many innocent songs by rote; and the pupils in the higher schools, in addition to music for recreation and for exciting good affections, attempt the mastery of this wonderful science."

During the first five years there were three different teachers of music. Then came Mr. Lincoln's long term of service of more than forty

years. He resigned in 1890, and Mr. Chapman was elected to take his place. An assistant teacher of music has been employed since September, 1902.

Drawing came into the grammar and primary schools in 1869, and into the high school in 1871. In the high school a special teacher was employed, but in the other schools the instruction was given by the regular teachers. For more than fifteen years, except for a limited time, the work was carried on without special supervision; but in 1885 a director was appointed and since 1893 the director has had an assistant. When drawing was first introduced into the schools, it was looked upon by many as an ornamental study of little practical importance, and those favoring its introduction felt called upon to justify their course. It is now a required study, and its utility is fully recognized.

As an experiment, sewing was taught for two years in the Allston school, the work beginning in the fall of 1877. Although the results were satisfactory it was not included in the course of study until 1890. It is now taught in the grammar schools to the girls of the three lower grades, and to the boys of the fourth grade.

Cooking found its way into the schools through the efforts of the Cantabrigia Club. For several years this club provided the means of instruction for a class of girls of the ninth grade of the grammar schools. In 1899 provision was made for a course in domestic science in the English high school, and cooking was included in that course. It is also taught in the vacation schools and might well be included in the work of the evening schools.

In 1892 concrete geometry and physics were added to the studies of the ninth grade, and elementary botany to those of the primary grades and to the lowest grammar grade.

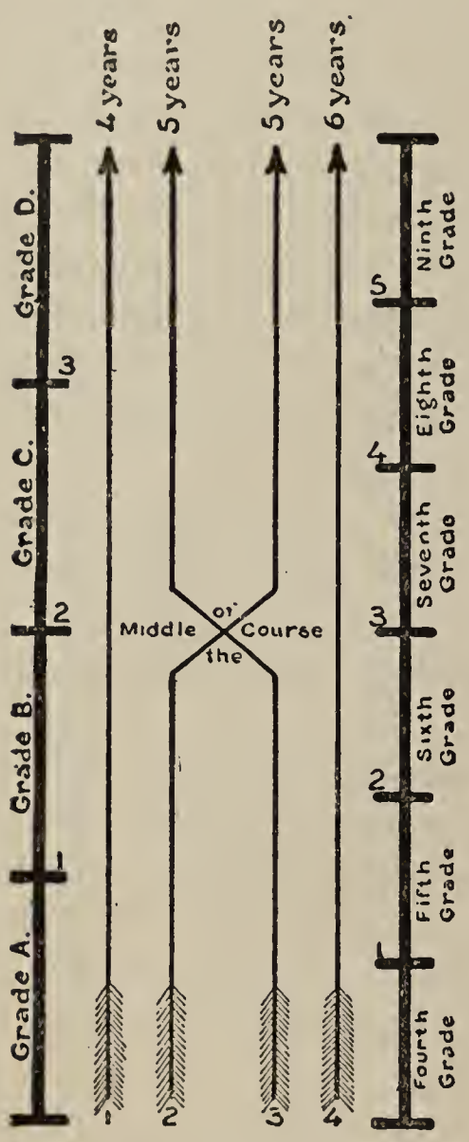
In 1893 the Ling system of physical training was introduced into all the grades of the primary schools, and later into those of the grammar grades. The essential aim of the teaching is to make the gymnastic period one of healthful exercise and recreation.

All these subjects, except music, have come into the schools during the past fifty years. It may be questioned, it *has* been questioned, whether our present course of study in the grammar schools is not too crowded. It *is* too crowded unless the subjects are wisely correlated. The course was adopted only after the most thoughtful consideration. A special committee was appointed to examine the courses in our grammar and primary schools. This committee gave freely of their time to the study of courses in other cities, and sought information from many persons whose practical experience made their views of special value.

It is now more than ten years since the course was adopted. One of its main features is its flexibility. A child may be four years in doing

the work, or five years, or six years, as his physical condition or mental capacity make it desirable.

As a result of this plan, more than fifty per cent of the pupils entering the high schools during the past eight years, did the work in the grammar schools in less than the full time of six years, forty-one per cent doing it in five years, and eleven per cent in four years; and the records show that the pupils who did the work in the grammar schools in the shortest time fully sustained themselves through the whole course in the high schools, even outranking those who had spent six years in the grammar schools.



Radical changes have also taken place in the primary schools There are no classes of seventy or eighty and even ninety pupils under the care and instruction of one teacher as was frequently the case before 1860. Under the superintendency of Mr. Hale, the primary schools were reorganized, and the course of study was changed to meet the advanced views of primary education. In 1892 other changes were made, and a supervisor of primary schools was appointed.

Since 1890 the schools have come into close relation with the public library. From week to week books desired by teachers and pupils have been delivered at the schools. For several years the librarian has kindly prepared a list of books of special value to teachers which has been printed in the school reports.

During the past ten years the schools have received many gifts of pictures and books, or of money to be transmuted into whatever may be instructive and refining in its influence. The gifts have ranged from a single book to a library of more than six hundred volumes — from a single picture to three hundred to be divided among several schools — from a single piece of coral to the large collection of minerals at the Latin school and other schools. Two brothers gave five hundred dollars, and in two instances nearly one thousand dollars were subscribed by various persons.

The books and pictures and other gifts that have become the possession of the schools have a money value that might be estimated, but they are invaluable as an expression of the interest shown by teachers, pupils, and friends of the schools.

Arrow No. 1 indicates the four years' course; grades A, B, C, D. Arrow No. 2 indicates one of the five years' courses; grades A, B, 7, 8, 9. Arrow No. 3 indicates the other five years course; grades 4, 5, 6, C, D. Arrow No. 4 indicates the six years' course; grades 4, 5, 6, 7, 8, 9.

OUTLINE OF THE SELECTIONS FROM THE SCHOOL REPORTS 1840 — 1874.

1840. Classification of the schools into alphabet, primary, middle, grammar, and high. No office more difficult and responsible than that of school committee.

1841. Five hundred ten visits by the committee during the year. The appointment of superintendent of schools suggested.

1842. School libraries for the benefit of the older scholars.

1843. Spelling inferior to what it was twenty or thirty years ago.

1844. Disfiguration of the schoolhouses. Irregularity of attendance. More attention to good manners and morals. Importance of sustaining the schools.

1845. Influence resulting from the education of the two sexes in the same school.

1846. Teacher's mission. Should seek to make good children, good brothers and sisters, good men and women, good and useful citizens.

1847. The cultivation of the moral and religious capacities and affections the highest purpose of education.

1848. The committee have the same motives for an economical expenditure of money as their neighbors. Examinations of the different schools.

1849. Commendation of the school system. Radcliffe College.

1850. The reading and pronunciation of the English language should receive increased attention in all the lower schools.

1851. We must look upon the conduct and character of scholars with leniency. Teachers are entitled to the most liberal treatment from the public. Salary of teachers. The highest and best education in a republic is the best in all respects.

1852. Work of the committee. An education to which every citizen of a republic ought to aspire. It is necessary that every one should be thoroughly trained in a knowledge of his mother tongue.

1853. Difficult to make a selection of studies for a high school. English course extended to four years. No electives.

1854. Semi-annual examinations, each of which occupies the committee ten entire days. Character of the schools.

1855. One sentiment animates all who stand in official relations to the educational interests of our city.

1856. In order to teach successfully, teachers must continue to learn.

1857. The true method of teaching history.

1858. A reply to what has been said in regard to "over-tasking" the pupils in our public schools.

1859. Room for a less narrow range, not of study, but of instruction. The vocation of a teacher tends to run easily into routine and acquiescence. The humblest teacher ought to be able to say that he neither narrows his work nor lets his work narrow him. The powers chiefly to be cultivated and developed in children are those of memory, observation, and quickness.

1860. It will not do to begin with a monotonous, unvarying routine, if you wish to stimulate to mental activity. Let order be secured, not through the forced sit-still method, but through the self-forgetful attention which genial and interesting processes of instruction will produce. Costly schoolhouses and yet not adequately furnished. Teacher's vocation second to none other. Text-books are not inclosures within which the minds of scholars are to be penned. Teachers to maintain a diligent watch over manners, speech, and temper.

1861. It is true only in a narrow and technical sense that the teacher is in the place of the parent. The parent can delegate his trust to no other. Moral and religious training are the highest parts of education, and it is the teacher's duty to aid the home training in these respects. The teacher must himself be what he urges upon his pupils.

1862. The school is made by the teacher. It bears his stamp and seal. While the race after novelties will ruin any school, there is no school that will not profit by occassional novelty in the manner and details of the instruction.

1863. College course separated from the high school course.

1864. Is too much work required of the pupils in the high school? Willing to remit a portion of the studies when a physician so advises. The education of a child is of importance enough to be pursued seriously and steadily. Health may be injured as much by exposure to night air and late hours as by evening study.

1865. Methods of education so various and so pressing that it would be of advantage if a general superintendence could be assigned to one man. Duties of such an office.

1866. All the appointments and surroundings of the places where children are to be taught and trained should conduce to cleanliness, cheerfulness and good taste. It is difficult to see that it will cost more to build and equip suitable schoolhouses, than to multiply police stations, and furnish houses of correction.

1867. Whatever tends to render schools more interesting and more valuable to the pupils will so far tend to render the discipline milder. The high school is not called upon to rival a college in the extent of its work.

1868. It is the bounden duty of the school committee to choose the best possible teachers. Mr. Edwin B. Hale elected superintendent of schools. The establishment of a normal or training school department recommended.

1869. A right mental discipline is largely a moral one. A child interested in his work is not a troublesome one. Education and not the passing of examinations is the end of school training. The teacher, hardly less than his pupils, needs the freshening influence of a wider range of topics.

1870. Give the teachers the greatest freedom and hold them to the closest responsibility. The text-book and course of study should neither be imposed nor followed with an iron rigidity. No question relating to the schools of higher importance than that which has to do with the appointment of teachers.

1871. Methods of teaching grammar, geography, and history open to unfavorable criticism. Instruction with reference to the objects with which children are in contact every day is almost wholly omitted.

1872. A steady advance in the way of bringing in thought and casting out routine. Vacation schools needed in which the hours and methods of study should be adapted to the season. Diplomas to be given to the graduates of the grammar schools. The work of education consists chiefly in giving a thirst for knowledge and in teaching the means of gratifying it.

1873. Mr. Edwin B. Hale resigned his office the first of October. A simple enumeration of Mr. Hale's services would be a sufficient argument for the necessity of professional supervision. An ungraded school recommended for pupils whose influence is wholly bad.

SELECTIONS FROM THE SCHOOL REPORTS 1840—1874.

The first printed report of the schools of Cambridge in possession of the school department is for the year ending March, 1841, and so far as the superintendent knows this is the first of the printed reports. Annually since that time these reports have been printed and distributed to persons interested in the schools. At the present time, however, many of the earlier reports and a few of those of more recent years cannot easily be obtained.

During the past summer vacation the superintendent read with renewed interest the reports made previous to 1874, the year when he became superintendent of schools. These reports are of historic interest and are rich in educational thought. They are not, however, within the reach of many persons who would be interested in them. The superintendent therefore decided to omit from this report the information usually given in regard to the organization and work of the schools and substitute for it one or more selections from each report from 1840 to 1874.

From the Report for 1840.

Page 3. The schools are divided by a system of gradation into five classes, viz., alphabet, primary, middle, grammar, and a high school. There is also a school called "The Hopkins Classical School" to which the town is allowed to send nine boys for instruction, and of whose board of trustees the chairman of the selectmen and of the school committee are, *ex officio*, members. The number of children in these schools, exclusive of the Hopkins school, is one thousand three hundred eighty-eight, and the number of teachers is nineteen.

The appropriation of the town last year for "Instruction of Public Schools" was $6,500. The committee have exceeded this sum in their expenditures by the small amount of $247, owing chiefly to the establishment of three new schools.

The public schools are superintended by the committee in the following manner. The schools are visited monthly by one of a sub-committee of three, and at the close of alternate quarters by the whole committee, and the other quarterly examinations by the several sub-committees of each ward.

Pages 4, 5. The labors of the committee the past year have been unusually arduous, owing to an increase in the number of schools, and to their endeavors to elevate and perfect our present system of instruction. The duties of this body, if faithfully discharged, are never light. When

we consider the trust reposed in them by the State, the examination, and in some cases the employment, of all candidates for teachers, the monthly visitation of all the schools, the selection of books for the children, the quarterly examination of each school, the giving counsel to the teachers, and "the general charge and superintendence of all the schools," we cannot fail to perceive that no office in town is more difficult and responsible than this. If the citizens will keep this point always in view, they will place none on this committee but competent men. No greater calamity can befall a town than to suffer this office to be filled either on sectarian or political grounds alone. Intelligence, ability, and moral worth should be regarded as the only qualifications that can fit one for this service.

From the Report for 1841.

Pages 14 and 15. The duties of the committee have so much increased as to demand, in our opinion, an addition to its number. Beside the labors incident in general to the charge of twenty-three schools, that of making all the visits required by law has become in this town oppressive. During the past year, your committee have made five hundred ten visits to the schools; and this number, they believe, great as it is, still falls below the requirements of the statutes. They suggest either the appointment of a superintendent of the schools, who shall devote his whole time to their demands, and be subject to the general direction and confirmation of some five or seven other individuals, or an enlargement of the committee to nine or eleven.

In conclusion your committee, while they rejoice in the present condition and prospects of the schools, and believe that as literary institutions they are doing much to elevate and perfect our system of education, would recommend an increased attention, both on the part of parents and teachers, to their moral improvement. Time should be allowed a teacher to do all he desires in this respect, no complaint being made because a class does not read or spell its usual lesson, when a case of misdemeanor comes up. Let not the teacher be forced to defer all such cases till the close of the school. What better method could be devised of spending an occasional hour, than the consideration of that which is far more important to our children than mere learning, their moral habits? The mind is pressed forward in our age by new and multiplied processes, in the schoolroom as elsewhere. But the heart meantime is often left in neglect. Respect for parents, deference to the aged, modesty and humility, are in danger of being unknown words with the young. Can we do nothing in our public schools to stay this impending calamity? Shall we, as our children enter the world for themselves, part with them in peace, if while

we have trained them in all grades of schools, we have never sent them to "the school for good manners?" Can the gain of intellectual, compensate for the loss of moral power? Will science render them good citizens, good men and women, if unaccompanied by correct principles, generous affections, and pure habits? If not, then let the schoolroom do its part in more closely uniting what the times would put asunder.

From the Report for 1842.

Page 11. The committee would call the attention of the town to the subject of establishing school libraries, for the benefit of the older scholars. The legislature has made the liberal offer of paying fifteen dollars to each school district which will raise the same sum themselves for the purchase of a library. We earnestly hope the town of Cambridge will not neglect this favorable opportunity of procuring good books for their children's use. Such works as Sparks's Lives of Washington and Franklin, not to name other books in the wide range of reading embraced in the libraries already published for this object, including history, biography, polite literature, natural history, etc., should be placed within the reach of the young in our schools. They would prove an invaluable substitute for those juvenile romances and those cheap newspaper novels which are now constantly doing mischief among our children. We suggest the expediency of an appropriation of two hundred dollars, by which our high, grammar, and middle schools might be supplied with sets of these libraries.

From the Report for 1843.

Page 14. A few of the schools excel in reading, while most of them, both in reading and spelling, are lamentably deficient. The latter exercise especially is often performed in such an inattentive and mumbling manner, as proves it to have been greatly neglected. There is an unaccountable reluctance on the part both of teachers and scholars to use the *spelling book;* a book, which, in the days of their fathers, was ever acknowledged "the only sure guide to the English tongue."

For this reason, or some other, we have but very few if any good spellers. The committee are unanimously of opinion, that the attainments in this branch are altogether inferior to what was witnessed in our schools twenty or thirty years ago, in the days of "spelling matches," and "choosing sides," and "taking places," when spelling was generally the most spirited and interesting exercise in school. There may be other modes of learning to spell, besides the "study of columns," but it is believed that there is no other perfect substitute for it. It is sincerely hoped that, hereafter, much more attention will be paid in our schools to *spelling.*

Pages 15, 16. Much depends upon a right selection of teachers. No school can prosper without *good* teachers. A bad tree may as well bring forth good fruit, as a bad teacher make a good school.

A good teacher combines in himself an assemblage of qualities not often found in the same individual. A familiar knowledge of all the required studies, aptness to teach, tact in management, decision mingled with gentleness and suavity, impartial justice, elevated moral sentiments, self-control, patience, energy, pleasure in the employment, a kind and cheerful disposition, and an ability to infuse into the youthful mind an enthusiastic desire of progress in knowledge and goodness. Perhaps there are few, if any teachers, who unite in their own characters all the qualities described. We have some, however, who besides being abundantly competent to fill their station with honor, devote themselves to their work with an almost self-sacrificing assiduity. It is the true policy of the town to give them and all their teachers honorable compensation, and insist upon a high order of services. And if, at any time, there are any who from constitutional infirmity or other causes are manifestly unable to meet the just expectations of their employers, neither they nor their friends ought to take it unkindly, that their places should be supplied by others. All persons are not equally qualified for all duties, — a man may be a good man, but a poor teacher. Better that a single individual should suffer temporary disappointment in the failure of cherished hopes, than that a whole school should lose those golden days which are properly devoted to improvement, and to laying the foundations of usefulness and happiness, and which, once lost, can never be recalled.

From the Report for 1844.

Page 16. Something should be done immediately for the purification of our schoolhouses, not excepting (we are sorry to add) some of those which have been more recently erected. The committee have no words to express the shame and indignation which the vile disfiguration of these edifices are calculated to excite.

Page 18. There is no one evil which calls more loudly for reform in our schools than inconstancy of attendance on the part of the children. Occasional absences can scarcely be avoided. But when idle boys are seen almost every day, and in every section of the town, loitering about the streets, or playing marbles upon the sidewalks, the conviction is forced upon us that many of these absences, so ruinous to morals as well as to progress in knowledge are neither occasional nor necessary.

Page 22. We would also urge the importance of more attention, in all our schools, to good manners and morals, the principles of piety, and the

principles on which good free institutions are based and sustained. While we never could allow sectarian influences to be exercised, or the politics of party to be inculcated, we do feel that great truths, everywhere acknowledged by the wise and good in this free land, should be incorporated into the education of free citizens and immortal minds.

Page 23. Last year particular notice was taken of a general deficiency in spelling. Some teachers have made earnest and successful efforts to secure improvement in this branch. But the deficiency is still lamentable, though the younger scholars seem to be laying a foundation for future success in it, which many of the older ones in consequence of previous neglect, will probably never attain.

Page 24. Reading is at the very foundation of intellectual acquirements and accomplishments. Next to moral excellence, good reading is the finest ornament which can grace a school. And there are scholars, and even classes, which perform this exercise in a manner to charm the hearer like music.

The committee are happy to say that the teachers have prosecuted their labors for the most part with great patience, wisdom, and fidelity. Scolding and fretting, angry and reproachful words, are fast giving place to milder and more powerful modes of influence.

Page 25. Your committee beg leave to urge upon all good citizens the importance, which most of them already deeply feel, of generously sustaining the schools; to the selfish, as well as to the philanthropic, we say sustain the schools; public order, freedom, thrift, and security of property, and the comforts of a civilized and Christian community depend upon them. To the benevolent, we say sustain the schools. You cannot confer a greater benefit upon the masses around you than by securing to them a just and thorough education. To the patriotic, we say sustain the schools. It is for you to decide to what sort of population, ignorant or instructed, immoral or virtuous, you will intrust the destinies of this ancient town and your country.

From the Report for 1845.

Pages 20, 21. There are doubtless advantages in educating masters and misses, towards the close of their common school education, in separate schools. The sexes differ in intellectual as well as in physical constitution; and when this diversity becomes more decided, as it does about the period in question, a different discipline and a different cultivation is unquestionably important to the best development of the true man in the one class, and of the softer but no less noble qualities of the true woman in the other. But these advantages can be secured in a good degree by

an instructor of elevated character, competent to his profession, especially when a female assistant is also employed, without a separation.

But there are good influences also resulting from the education of the two sexes in the same school, which should not be left out of the account.

In a wisely governed school of this description, the manners of the boys are softened and their minds refined, while the girls are placed under that measure of restraint which conduces to self-respect, watchfulness, and dignity of character. Besides, both sexes become acquainted with the good qualities of each other's minds and hearts. The friendships which exist among them are more likely to be founded upon esteem, upon a perception of kindness, of honor, of scholarship, and such like virtues in each other, than when the idea of sex is too carefully kept in view. May not the manifestation of undue solicitude to keep them apart operate, by a natural law of association through the imagination, to strengthen the evil tendencies deplored. Are there any means more likely to degrade the minds and vulgarize the whole character of either sex, than to educate them on principles which exclude all innocent friendships, all mutual regard for the excellences of each other's characters, all pure affections and civilities, and lead them to the thought that there is nothing attractive in each other's society, but just that which is founded on the lowest distinctions of their nature? It seems to us that it is not difficult for a wise and pure-minded instructor to inspire his pupils of both sexes with those high sentiments of propriety; the boys with that sense of honor, that regard for the character of a gentleman, and the obligations of duty; the girls with that delicacy and dignity so natural to the cultivated female spirit; and both with that just appreciation of what is due to their nature, to public sentiment, to the consequences of actions, and to the laws of God, which will not only preserve them from gross immorality but make their intercourse in the same schools like that of brothers and sisters in the same family,— alike purifying and ennobling.

Page 22. Besides, if children cannot be trusted together amid all the restraints and preserving influences of a well-governed school, if they cannot be taught to live together "like brothers and sisters with all purity," in the name of common sense, what is to become of them when thrown out into society?

Let us not be understood as particularly zealous to preserve the mixed character of our schools when circumstances allow a separation. All we mean to say is, that in our opinion it is generally safe, and on many accounts desirable, to educate boys and girls in the same school.

From the Report for 1846.

Page 67. Let the teachers seek to elevate, purify, and ennoble the characters of the children, by inculcating those principles of Christian morality and piety, in which all are agreed, and which the constitution of the Commonwealth requires to be taught — to inspire their pupils by example and precept with a high sense of honor, with a strict regard to justice, purity, honesty, and truth — with a disposition to aspire after excellence — and with all those good affections which are connected with love to God and love to man. Our teachers are sculptors whose business it is, not to chisel out beautiful forms of stone for the admiration of posterity — but to unfold and fashion immortal minds — to make good children, good brothers and sisters, good men and women, good and useful citizens — to assist in laying the foundations of character, "for the life that now is and for that which is to come."

Let the teachers maintain always in their schools a kind, paternal, but firm discipline — avoiding all rashness, partiality, and irritating remarks — insisting upon good order, and making the schoolroom a place of healthful enjoyment, as far as possible to every child in the school.

From the Report for 1847.

Page 28. Though our teachers were doing all that we desire to give the most thorough instruction in the several branches now prescribed, — in the languages, in grammar, geography, history, mathematics, and the natural sciences, — still, if this were all, they would come far short of accomplishing the highest purpose of education, which is the cultivation, not of the intellectual powers, but of the moral and religious capacities and affections. Without the cultivation of this part of the child's nature, which is its peculiar and preëminent endowment, the development of its intellect merely may be not only useless, but worse than useless, and fraught with danger to society. Knowledge without virtue, — intellectual without moral cultivation, — increases the capacity for evil, while the propensity to commit it is subjected to no moral control.

From the Report for 1848.

Page 67. In regard to the expenditures of the school committee, there is a diversity of opinion among the people which is entitled to respectful consideration. The committee being a part of the tax paying community, have the same motives for an economical expenditure of money as their neighbors; and with them, also, they have only a common interest in providing suitable accommodations for the children, and procuring teachers sufficiently competent in learning, and skilful in impart-

ing instruction, to take charge of the schools. They expect to show that what they have done for these purposes is intended not for an ostentatious display of generosity; not for vain boasting of what they do more than others; but for the well-being of the schools, and for guarding against their degenerating, and falling below the standard to which, by great exertions in past years, they have been raised.

Page 69. There are four examinations of the schools during the year. That which takes place near the close of February is called the annual examination; and the others quarterly examinations. In speaking of examinations, the committee confine themselves in this report chiefly to the annual examinations of the different schools, with occasional reference only to those at other seasons.

In consequence of there being one vacancy in the committee there remained six members without the chairman. Two of them examined the alphabet schools, two the primary, and two the middle. The grammar schools were examined in presence of the whole committee, and to each of the six members was assigned a particular department for examination, and a given portion of time for bringing it to a close. The arrangement was carried out with great exactness. Each examiner confined himself to the alloted time, none of which was lost by delay. Those of the committee who had been members in preceding years were fully agreed in the opinion that no previous examination had been conducted in a manner so satisfactory, not only to themselves, but also to the teachers and the taught; and none they believe with so much benefit to the schools.

From the Report for 1849.

Pages 86–93. This report contains an interesting account of the high school as organized in the summer of 1848, and speaks in terms of highest commendation of the Cambridge school system. It closes thus: "When we take into consideration, moreover, that our noble University with its professional and scientific schools towers in the midst of us, and that the high school now forms a connecting link between this institution and the lower schools, we cannot but look with admiration upon the educational advantages of Cambridge.

If private munificence would endow one additional school, in which our daughters could obtain advantages for improvement approximating those which our sons enjoy in the University, the opportunities for education would be unquestionably superior in Cambridge to what can be found in any other spot on the globe."

This report was written by William A. Stearns, afterwards President of Amherst College. In Radcliffe College we have the "additional school."

From the Report for 1850.

Page 75. We must look to our common schools to guard the rising generation against the degradation of the language, which so many concurrent influences seem now to threaten. The attention of the teachers in all the lower grades of the schools should be especially called to this subject. Faults of enunciation can be easily corrected at an age when the organs of speech are flexible. The exercises adapted to this end which are carefully practised in some of the schools, should be required in the alphabet, middle, and primary. Pupils qualified to enter the grammar schools should be free from faults of this kind, so that the time and labor of the grammar masters may be spent on other parts of the study of our language, more suitable to the higher stages of an English education — to the study of style, and the critical examination of the works or passages from the works of our best writers. That the highest classes in our grammar schools are fully capable of mastering these beautiful and most instructive studies was demonstrated during the recent examination. The committee, therefore, hope that the reading and pronunciation of the English language will receive increased attention in all the lower schools, and that the masters of the grammar schools will thus find time for more exercises in the critical examination of entire works or portions of works of those authors who belong to the classical literature of our language; for instance, parts of Spencer's Fairy Queen, the Paradise Lost, a play of Shakespeare, the poems of Pope, Goldsmith, Bryant, and Longfellow, a good translation of the Iliad, or in prose, an oration of Demosthenes or Cicero translated, a discourse of Burke, Webster or Everett. In other words, the suggestion is to introduce among the English scholars of our grammar and high schools a thorough study of our language and some of the best authors that have adorned it, in a method corresponding to that which is followed in the study of the classical languages at school and college.

From the Report for 1851.

Pages 67, 68. In judging of the conduct and character of scholars, we must always look upon them with leniency, remembering that the highest and best of human beings are full of faults and imperfections, and that it would be visionary to expect of children that uniform excellence which none of their elders succeed in attaining. We must remember, too, that they are still in the weakness of their reason while their passions are strong; that few of them are under the wisest guidance at home; that parents seldom come up to the standard of perfect duty in

training their children in the way they should go, while many set before them bad examples of unprincipled conduct, profane conversation, and brutal manners. Some children come to school from homes where the influences are good; others, where they are indifferent; others, where they are almost wholly evil. All these considerations ought to temper the severity of our judgment, whenever the unpromising conduct of boys and girls at school tempts us to despair of final success. These considerations should also increase our sympathy for the teachers, who have all these obstacles to contend against, and heighten our appreciation of the value of their services, when their labors are crowned by the moral and intellectual growth of their pupils.

Pages 69, 70. The position of teachers is peculiar, and surrounded with difficulties. They are entitled to the most liberal treatment from the public in every respect. The office is all-important in its relation to the future, and ought to receive a degree of respect corresponding to its dignity from the present. Teachers who are animated by the right spirit, renounce the common objects of ambition and pride; they withdraw from those careers which lead to wealth and political distinction. They remove themselves even from those sources of emolument by which salaried officials, in business relations, generally have an opportunity to increase their pecuniary means. In fixing the salaries of persons so placed this view is most important. The income of a permanent teacher should enable him to live with decency; to share in the social life and the hospitalities of the community to which he belongs, according to the average standard of the society he moves in; to educate his children respectably and to provide a shelter and sustenance for old age, which comes to all, but to him sooner than to most other men. He is entitled to a salary which will meet all these exigencies; and if he does not receive it, his life will be loaded with painful anxieties, and his usefulness greatly impaired. There is no doubt, that however low the salaries are reduced, men will be found who will accept them. But to employ a vulgar, ill-educated, incompetent person, to take charge of our children's education, because he can be hired cheap, is the worst kind of prodigality of which we can be guilty. We do not save by it the money which we refrain from spending, but we squander, in a most profligate manner, every cent that we pay; and to the dead loss of just so much capital, we add the infinitely greater loss of all the time our children remain under the care of such a teacher; we throw away the precious and irrevocable hours of their childhood and youth; we leave their high faculties to run to waste under ruinous and unskillful culture; and let them form bad intellectual habits, and acquire shallow or erroneous views, which will go with them through the longest life. Surely there is no wastefulness so mischievous and wicked as this.

Pages 72, 73. The highest and the best education in a republic like ours, is the best in all respects. The very term republic points our view from private to public interests; from the narrow circle to the wide range of the largest political community. Our wealth is in the mines of intellect that lie hidden in the popular body, and not in the gold and silver and iron, even though the national domain stretch over vast continents that rest on golden foundations. To make this wealth available to its highest ends we must labor without ceasing, not only to extend some education to all, which is the narrow view of many so-called practical men, but to place the best education within the reach of those who can turn it to the best account.

No man can tell to what destiny his son may have been born; to bound the ideas of popular education by so much knowledge as may make a man competent to discharge the ordinary duties of life without disgrace, and to regard all higher education as a superfluous luxury, so far from being democratic, is to recognize the fundamental principle of the most odious aristocracy, namely, a distinction of classes, — one class condemned to toil and drudgery, irrespective of natural ability, and another born to enjoy, in addition to common luxuries of wealth, the greater luxury of scholarship, art, and polished education. And yet many of those who assume to be the peculiar and exclusive friends of the people, take in effect precisely this aristocratic ground. The principle of our fathers was, that the property of the State should educate the intellect of the State; and they used the term education in the widest signification known in their day.

Pages 74, 75, 76. Our public education should be, not specific, but general, aiming at a just and equable development of the intellectual powers, and so enabling each to assume the place in the community which he is best adapted to hold. The son of the poor man, even under the imperfection of our present system, becomes the wealthy capitalist; the country boy rises to a leading position in a great city; the farmer's son grows up into an eminent lawyer, and perhaps becomes the President of the United States; the son of the humble mechanic proves to be the great discoverer in science, and fills the world with his fame. And it is clear to a demonstration, that the wealth and the power and the true civilization of a republican State will be the greater, in proportion to the facility with which the diversified talents of its children find their appropriate spheres of activity; and a system of public education is truly republican just in proportion as it brings the means of securing the best possible education within the reach of all who are qualified to benefit by it. It is the general culture of the mind which brings to light intellectual aptitudes. Without this, the attempt to mark out the future careers of our

children is no better than arbitrary decision or vague guess work. God has written upon the minds of every one of his children his own will; he has traced with the creative finger of omnipotence the lines and proportions of the intellectual constitution; general education is the fire which brings out and makes legible these invisible signatures of the Almighty.

Who, then, can doubt that the true policy of a republic is to extend the opportunities of the highest possible education farther and farther, until they reach every child in the State, until all the talents in the State find their natural level and their congenial spheres? The more a man's powers are unfolded, the better will he be fitted for his special occupation or profession, when he finds out what nature means that to be. The details of business, the methods of transacting this or that class of affairs, can be readily and rapidly mastered by a young man of good general education in the early stages of his business or professional career; but if the proper period for general education be prematurely occupied with special preparations, he will find it difficult afterwards to acquire that versatile power and mental culture, which can alone give him the highest advantages in any career he may have chosen.

From the Report for 1852.

Page 73. Taken as a whole, the history of the Cambridge schools during the year has been one of singular prosperity. The large body of teachers in schools of every grade, have performed their duties zealously, ably, and faithfully, laboring as in their great task master's eye. The committee, while endeavoring to exercise the supervising powers practically and effectively, have at the same time done their best to strengthen the hands of the teachers in their arduous and exhausting toils, and to co-operate with them, so far as possible, in making their schools instrumental towards accomplishing the high purposes for which they were established. They have visited the schools often, attending the various exercises, and encouraging the pupils to work vigorously in their studies. They have often consulted with the teachers, and availed themselves of the light of their experience in devising means to promote the interests of education. They have given much time and labor to the semi-annual examinations and have endeavored, to the best of their ability, to render justice to the pupils and teachers on these occasions and to call the attention of the parents and friends of the scholars to what the public authorities are doing for their benefit, and to remind them of their duties in return. And they have been unceasing in their endeavors to show that the proper business of education is to train up immortal beings, not only to do the practical business to which circumstances, inclination, or taste

may call them, but to fulfill the duties of citizens in a community of equals, under a sense of responsibility to the country and to God; that while the work of trade and profession must be faithfully performed there is a moral nature and an intellectual power above and beyond trades and professions, the exaltation of which is the true end of education, as well as of the whole discipline of man's life on earth. The *man* is above the mechanic, the merchant, or the lawyer; and the dignity of the nature God has given must not be kept out of sight by the peculiar stamp that social institutions or practical life have impressed upon him. A general education, to which every citizen of a republic ought to aspire, may be described in general terms, as embracing reading and writing the mother tongue; the relations of number and quantity; a knowledge of the world we live in, and of its relations to the rest of the system to which it belongs; general history of the world, and special history of our own country and its institutions; the cultivation of taste or the sense of the beautiful in nature, literature, and art; a knowledge of duty towards man and towards God. The faculties of the body and of the mind are capable of increase as well as development by exercise. The studies of the school aim to train the latter; and it would be very desirable that some system of physical exercise were connected with scholastic studies, to uphold and strengthen the former.

Page 76. In a system of general education, it is not necessary that all should be required to study the ancient, or the modern foreign languages; but it is necessary that every one should be thoroughly trained in a knowledge of his mother tongue, and of its chief literary treasures. It is our good fortune that we inherit the English language, along with the principles of constitutional liberty of which it has been in modern times the principal organ. The poetical literature embodied in it is rich beyond example since the days of classical Greece. From Chaucer down to Scott, a series of the most wonderful works of imagination produced by the genius of man since the revival of letters, has adorned its successive stages of development. It is the only modern language, in which parliamentary and judicial eloquence have found fitting and uninterrupted expression; it is the only language now spoken on earth, in which, as Mr. Thackeray justly remarked, the accents of liberty are at present allowed to find an utterance. The very terms in which the fundamental ideas of freedom are clothed have been settled by the usage of the English language and by no other. If then, we train our children up in the nurture of this noble tongue, we train them up to the best and fittest culture for intelligent citizens of a constitutional republic; we open to them the most splendid treasures of the intellect; we place within their reach the noblest products of the understanding and the imagination of man. The

committee have not hesitated, in co-operation with the teachers, to give this department of study the utmost extension compatible with a due regard to other necessary and important branches.

From the Report for 1853.

Pages 103, 104. It is a comparatively easy matter to decide what studies shall be pursued in a grammar or primary school; but in a high school, so many different branches claim our attention that it is difficult to make a selection. Still, a selection must be made, and many important subjects must necessarily be omitted. The course pursued in this school has been modified from time to time, and such changes have been made in it as experience has proved to be expedient. During the past year, it became evident that, according to the existing arrangements, more work was required than could be thoroughly performed; and the alternative presented itself, either of diminishing the number of branches or of extending the time. The latter plan seemed the better one, and accordingly the English course has been extended to four years and the classical to five. The advantages resulting from this change are twofold: — 1. It has enabled the committee to dispense entirely with the elective element, and to prescribe a uniform course of study for the whole school. It was found here, as it has been found elsewhere, that when scholars are allowed to choose what branches they will pursue, their choice is very apt to be the result of accident or of caprice, and thus the classification of the school becomes complicated, without any corresponding benefit to the scholars themselves. 2. More time is allowed for a portion of the studies, and on this account the instruction can be rendered more comprehensive and thorough. So far as can be judged from the short experience we have already had, this change will be productive of good; the additional year required will be found, it is thought, to be time well spent.

But in order to secure the full benefits of the school, the course of study prescribed must be rigidly adhered to and prosecuted to its completion. Scholars often desire to give up a study because it is distasteful to them, or because they cannot perceive that any practical good will result from its pursuit. But it should ever be borne in mind, that the object of education is not merely to impart knowledge, but also to exercise and discipline the mental faculties. The difference between a well-educated and an ill-educated person consists not so much in their acquisitions as in their capabilities. The advantages derived from the mere study of a language or a science may be as great, to say the least, as those which result from an actual knowledge of that language or science. Moreover, in every well-digested system of study, the different branches

are to a certain degree dependent on each other; and though a young beginner may not in all cases be able to perceive the relation which exists between them, still this relation is none the less real. The committee have, therefore, never consented to the omission by any pupil of any of the prescribed studies but with extreme reluctance; and then only in cases where from ill-health, or some other good reason, the necessity of so doing was obvious.

From the Report for 1854.

Pages 81, 82, 83. The general reputation of the schools of Cambridge has been very high for several years; we believe it has never stood higher, and has never been more fully deserved, than during the last summer and autumn. The school system is an extensive and somewhat intricate one, requiring much labor and watchfulness on the part of those who have the direction of it, in order to preserve its efficiency, and to keep up the harmonious action of all its members. We have thirty-seven schools, divided into five ranks or grades, which are known respectively as the alphabet, the primary, the middle, the grammar schools, and the high school. The committee have endeavored to divide their attention equally among these different grades, as they see that the prosperity of each is dependent upon the one immediately below it, and is a necessary element in the success of the one next above it on the scale. Besides the usual monthly visits that are required by law for each school, semi-annual public examinations are held, each of which occupies the committee ten entire days. On these occasions the high school and each of the grammar schools is examined by the whole Board, while the lower schools are examined by sub-committees, each consisting of two or three members. The work is so distributed that every member of the committee has occasion to examine schools of every grade, and in all the wards, so that after a short time, he becomes acquainted with every school and every teacher in the city. These examinations are not matters of mere form; nearly the whole work of propounding the questions, examining the written exercises, and testing the proficiency of the pupils in every department, being performed directly by the examiners, the ordinary teachers standing by as mere spectators. Not infrequently we hear an alphabet class laboriously spelling monosyllables one day, and the next week we are required to examine high school classes in the Latin, Greek, and French languages, in advanced mathematics, and in the elements of nearly all the sciences; and we regard the two tasks as equally important and equally necessary to carry out with efficiency a system of public instruction.

It is on the intimate acquaintance thus acquired with all our schools, that we base the opinion already expressed of their high character, and of

the thoroughness and excellence of the work that is done in them. If there are any among our fellow-citizens who have doubts on the subject, or who complain of the heavy expense of the system, we would invite them to follow the committee in one of these semi-annual reviews, and then judge for themselves. Let them remember that it is in these schools that more than three thousand children are now receiving nearly all the intellectual culture which they will ever obtain from any other source than the stern experience of life. In these schools influences are exerted, second in importance only to those of the family fireside and the Bible, to mould the characters and the destinies of the coming generation, to train up the men and women, the fathers and mothers, who are to take our parts and fill our places when our own earthly work is finished, or is left incomplete behind us. These three thousand children represent at least fifteen hundred families in our community, to all of whom the nature and degree of the school instruction which their sons and daughters are receiving are matters of the liveliest interest. Is there any other municipal concern, any subject which claims the attention of our civic government, that equals the public school system in magnitude and importance? Shall the money which is needed to keep up this system be more avariciously counted, and more sparingly doled out, than that which is spent upon fire engines and street lamps, police and paupers, roads and bridges, or any of the hundred other objects which drain the city treasury?

From the Report for 1855.

Page 80. The committee take pleasure in noting the fact that the present municipal authorities have promptly granted the appropriations asked for the schools for the current year, and have cheerfully co-operated with us in meeting every exigency which has arisen. One sentiment has seemed to animate all who stand in any official relation to the educational interests of our city. No one is known to us who would willingly consent to such withholding of supplies as would tend in any degree to lower the standard of excellence which our schools have already reached or make less effective the facilities which we possess for educating the children of this ancient town. We have not yet reached a point of extravagance which affords any good reason for remonstrance or alarm. The ratio of cost per scholar for instruction is not higher in Cambridge than in other towns and cities in the county and the Commonwealth. In 1853 Cambridge stood *sixteenth* in the State in respect to the amount appropriated for the instruction of each child in the city between the ages of five and sixteen; and in the county of Middlesex, for the same year, our city stood *seventh;* and in 1854, *fifth.*

From the Report for 1856.

Page 97. Teachers are subject to certain additional expenses which grow out of the very nature of their employment, and cannot be avoided by those who are ambitious to excel in it. In order to teach successfully, they must continue to learn. Books must be purchased; conventions and institutes must be attended, with some outlay at least for travelling expenses; and special tuition must be obtained in some departments, such as drawing, elocution, music, the projections of maps, and the French and Latin languages, in which their own elementary training has either been deficient or needs to be renovated and kept up by continued study and practice. Education is by no means finished at school, and those especially who adopt the teacher's profession must constantly devote a portion of their leisure to reading and study, or they will soon find themselves falling behind the times. The committee place the more stress upon this point because they fear its importance is sometimes lost sight of by those who have been long in the business, and with whom teaching is in danger of degenerating into a mere mechanical routine.

From the Report for 1857.

Page 9. To teach history, not well but at all, is to get a lodgment for its facts in the brain by converting them into the child's own thoughts, by intertwining them with his associations, and engraving them upon his imagination. A true teacher of history has first to know what he would teach; has to catch the spirit of an era, not to stop with the letter of a manual; has to feel the life, not merely remember the dates of a period; then, every important event will be brought out distinctly to his class, every person of note will pass over the stage as a reality, every contemporary biography will be eagerly laid under contribution, every geographical allusion will be so traced out that Jamestown cannot possibly be mistaken for Plymouth. The manual will be the starting point, not as now the goal of the pupil's excursion, a nucleus around which his own quickened thoughts crystallize, not a lump of clay to be pressed down upon his own busy brain.

From the Report for 1858.

Pages 124, 125. Much has been said in the public prints and in private circles, the past two or three years, in regard to "over-taxing" the pupils in our public schools. As this is a subject of the greatest importance to the health and prosperity of the rising generation, we propose to discuss the subject, and see if it is true of the public schools of Cambridge.

By the school regulations of our city, a child is required to be five years of age before he can enter the public school. At this age unless he can read, he enters the alphabet school, where he is taught reading and spelling, and is usually two years in passing through this grade. He enters the primary at seven where reading and spelling are continued, and the addition and subtraction, multiplication, and division tables are to be learned, and here again two years are passed making the child nine when he enters the middle school. In this grade reading and spelling are continued; geography, writing and defining commenced, and Colburn's Mental Arithmetic is required as far as section twelve. Here two years more are spent making the pupil eleven when he enters the grammar school. In this school mental arithmetic is dropped and written arithmetic taken instead, and continued in Chase's as far as involution, just far enough to carry on the ordinary business of life; descriptive and mathematical (not physical) geography is finished, grammar and composition are studied, the history of the United States as far as the close of the Revolutionary War, and reading, spelling and writing are continued. In this grade three years and a half more are occupied, making the pupil fourteen years and six months old when he applies for admission to the high school.

The questions for admission to the high school for this year were given in this report, seventy per cent of correct answers being required.

From the Report for 1859.

Pages 140, 141. We are inclined to think, and this we say with hope and not with complaining, that here and there in our schools there is room for a less narrow range, not of study but of instruction. The studies are numerous enough (perhaps too numerous) and far enough advanced. But the mode of teaching is not always as *rousing* as it might become. We know the great difficulties to be fought against. The schools must receive a large number of ignorant children, whose parents have not had the ability or perhaps the will to impart to them that home training which is the corner stone of all other training. They come to the schools dull, backward and with no other industrious habits. To these children the street is often more attractive than the home or the school, and what is got at school is soon crowded out of the thoughts. It seems as if no friction or blistering could raise any active glow in such minds. The case is hard, we admit; but the more sluggish the circulation, the greater the need of the stimulus; while there is life there is hope. A stout and strenuous spirit will brace itself all the more cheerfully up, when real difficulties challenge its utmost power. Every child knows something. Small as that may be, it is possible to work on it and with it. If push-

ing will not do, draw, coax, entice. Once start an interest, and a foothold is got. The peculiar traits of childhood may be taken advantage of and pressed into the service. The main lever to move the young is curiosity. The teacher who brings every day to his schoolroom something of his own, who stores up whatever of amusing and portable information falls in his way and works it into his daily business, has the best chance for success in the hardest cases, and indeed in all cases.

Among the powers chiefly to be cultivated and developed in children, are those of memory, observation, and quickness. The classes that make society stagnant, unthrifty, and backward, are the forgetful, the heedless, and the slow. To save the community from a crop of these useless or noxious weeds is a primary object in education, even the earliest school education. The vocation of a teacher tends to run easily into routine and acquiescence. He needs to be on his guard against himself, lest he should get into a groove. It was said in praise of the famous John Selden, that "his learning did not live in a lane." So the humblest teacher ought to be able to say that he neither narrows his work, nor lets his work narrow him. If he would fill a child's mind, his own mind must be pretty well filled too. He must be ever on the alert to outstrip himself. One success should be the stepping stone to another. And this in a steady, even way; without nervous anxiety and without consuming toil. Some of his best work should be in his play; for this will keep him fresh and bright, and so keep the door open to the hearts of his pupils. An active and advancing mind is his greatest treasure; and this is more often the reward of cheerful, moderate, and wholesome zeal than of feverish scruples.

Pages 143, 144, 145, 146, 147. In all the schools it should be an object of thought and care to introduce, as opportunity offers, specific and frequent memoriter exercises beyond the regular school book lessons, or as a substitute for a part of them. They should be and can be such as the young will be interested in. The poetical extracts in the reading books may furnish something, and the children may be encouraged to select for their teachers' approval pieces from their own stock at home. This will bring into play the last Christmas or New Year's gift, and teach the little owners to use it, not as a toy to be thrown by after the novelty is over, but as a permanent treasury. As the scholar rises in the schools, these exercises may be made more frequent and more difficult; till in the high school they reach their fullest development. Every pupil who enters that school should have been already trained to this kind of work. While he is there, he will be able to commit to memory and repeat with expression some of the choicest and purest passages in ancient and modern poetry. He will go out into life furnished with an abundant source of pleasant and refreshing thought and an abiding defence against the weariness of watching hours and

the depression of sickness or thickening cares. Such a training will, indeed, like all other teaching, be more or less stimulating or more or less mechanical according to the intelligence and zeal of the teacher. It may be reduced to a hum-drum sing-song, or be used with the aid of apt hints and skilful questions as a means to convey and to educe a great deal of wholesome knowledge and more wholesome activity.

The second topic mentioned above was the habit of observation. This stands to education both as cause and effect. Without a little of it nothing can be learned; without much of it little will come of what has been learned. Many children, especially in our larger towns, are singularly listless and inert in this respect. They do not see with their eyes and hear with their ears. To quicken and establish the habit of observation ought to be an immediate and definite aim with every teacher. Even in the alphabet schools much may be done; for the youngest are not always the least observing. What is there to hinder the teacher from giving now and then to his little friends a simple talk about some familiar object; say, a leaf, a fruit, a toy, a house, or the like; stopping every few minutes to catechize the young listeners on what has just been said, and leading them by well put questions to make their own contributions? The next day, while yesterday's lesson is still warm, the subject may be resumed, and the children questioned again. Suppose that a picture of an animal were shown. One scholar might give its name; another, tell its color; a third, mention some other trait within the range of a child's perceptions. Thus, little by little, a pretty good description might be built up out of the materials furnished by the scholars; and they would have what to young folks is always a great pleasure, the satisfaction of having told what they know as from themselves. Some one might now be called on to tell the whole story. It would be a premium on attention and intelligence to be called on to do this; and it would be done with eagerness. Next, the teacher might go beyond the experience of his pupils, and point out the instinct and habits of the animal; its food, its enemies, its use to man, and so on; bringing in at the right place an appropriate anecdote, or getting them to learn a bit of verse bearing on the same thing. All this implies no surrender of the regular book teaching. It could be added to it, and it would add to it. It would increase the faculty of learning anything that needs to be learned.

As you go up in the schools, these lessons may be enlarged, till in the grammar schools the children may be directed to bring up a *written* report of the whole exercise. When history is taught the teacher can read from other than the text-books, and require similar written reports. By exercises of this character, much may be done to open and sharpen the mind's eye. They will seize not only on the observing, but on those

who have the faculty of observing without any regular habits; those who jump great distances, but walk very badly. It may be added, that oral teaching, with abundance of illustration and active interchange of question and answer, is one of the best methods of imparting the moral instruction required by our rules.

And now, a hurried word as to the third point — quickness. The methods above suggested, if rational and feasible, as we believe they are, would not only sharpen, but (so to speak) whip up the minds of the pupils; so that they should work, not only more knowingly, but more rapidly. But special lessons might be contrived to this end of spurring the faculties. After a parsing lesson, for instance, let one or more impromptu sentences be dictated by the teacher, be written down at once on the board and then without further preparation, be parsed by some of the class. Or a number of words may be given out to be written on the board, and the class required to work them into a connected sentence by supplying other words. Or a rapid string of questions may be put to a class in geography, to be answered instanter with the map open and in full view; an exercise, by the way, perhaps too much neglected in some quarters. Children need to be practised in *finding* places quickly. Other expedients of the sort may be invented to keep the mind of the pupil on the spring. The various experience of different teachers and the diverse circumstances of different schools, will suggest suitable contrivances to meet the occasions for them.

If these views are sound, we look to a further advantage in their adoption. The most trying and depressing feature of a teacher's life is the necessity of constantly repeating his round of toil. He is perpetually in fear that he will not escape the rust and moss that collect in the path of routine. The slow wear of monotony tends to blunt the edge of the keenest faculties; whereas, whatever gives the mind now and then a good airing will bring it into fresher sympathy with the minds it has to act upon. Live and lively teaching is the best teaching. The art to inspire is the chief talent in the case. And very little trouble of mind or strain of toil is needed. The tone and play of mind are the main thing. A nature kept always clear and fresh will do wonders with the humblest machinery. Everything that comes to hand is transfigured by the energy of intelligence into an instrument of knowledge. A common wood cut, a simple landscape, a fireside story, a dying leaf, a starting bud, the feather of a bird, the fall of a snow-flake, all the wayside facts, all changes in the world of nature, are riches in the inventory of a quick-minded and clear-eyed instructor. We believe that a habit of cultivating these little but constantly recurring means of life, will make the vocation itself not only more productive; but vastly less burdensome and more invigorating.

FROM THE REPORT FOR 1860.

Page 103. In no respect is the difference between a child's mind and that of an adult more striking, than the contrast between a child's love of change and variety and the power of concentration in the adult. It is a long way from one to the other and the end must be reached by slow and gentle gradations. It will not do to begin with a monotonous, unvarying routine, if you wish to stimulate to mental activity. Such a system will make dullards instead of bright, quick minds. This roving habit of mind in the child is not pernicious at that age. It is nature's way to get acquainted with the world in which it is placed, by exciting its wonder and curiosity at every step. In every plan for educating children should we not, therefore, begin as nature begins, by allowing greater scope to this natural love of variety, detaining the mind only long enough on each object to fix some new idea?

There must be system, and there must be order; a school that is lacking in either of these is a failure at the start. But let the essence of the system centre, not in monotonous sameness, but in ever fresh variety; and let order be secured, not through the forced, sit-still method, but through the self-forgetful attention which genial and interesting processes of instruction will produce.

Page 110. We take occasion to express our surprise at the singular inconsistencies that prevail in regard to the facilities for education in public schools. There is a laudable and ever growing emulation to have schoolhouses so stately and ornamental as to be commanding objects in the landscape, and impress the passing stranger with the public spirit and noble principles of our communities. And yet there seems to be an almost utter absence of solicitude whether they be adequately furnished with those helps and conveniences, without which all the costly brick and mortar and wood-work go for comparatively nothing. What a singularity, indeed, to say no more, that many thousands of dollars should be proudly and freely lavished on a building solely for school purposes, and only a few hundreds be afterward doled out towards the supply of facilities for the proper fulfilment of those purposes.

Pages 131, 132. In conclusion we would sum up in a few words to our teachers the suggestions that spring out of our intense consciousness of their opportunities and responsibilities.

We consider your vocation second to none other upon earth. A school teacher, who is faithfully working up to an ideal commensurate with the possibilities of the immortal beings he labors with, has none that enjoy greater scope for loftiest influence, and should be held, therefore, in loftiest honor. See to it, then, that the grooved and channelled routine of your la-

bors does not narrow you down to a cold, perfunctory performance of them. See to it that you maintain your faculties on the alert, steadily picking up what fresh information you can from books or otherwise, and keeping abreast of the age, so that you can draw unceasing supplies from your intellectual stores, to illustrate the studies of your classes, and ply them with suggestive stimuli. Remember well that text-books are not inclosures within which the minds of your scholars are to be penned, but guide-boards to point out what manifold reaches of road are before them for their assiduous travel; and that, in another's phrase, "a child should be taught two things every day, both to know his book and to forget it." Maintain a diligent watch over your manners, so that your refined and chastened demeanor shall be a constant lesson, forceful though silent, in the proprieties of decorous behavior; over your speech, so that its purity and correctness shall illustrate the eloquence of a true usage of our mother tongue; over your temper, so that your discipline shall owe more to the moral power of your self-possessed manhood and womanhood than to the terrors of your frown or your rod. And above all, seek fervently from the right source, to be so inspired with the supreme and eternal realities of existence, that your whole being shall gravitate ceaselessly towards the noblest issues of life. Then your unconscious tuition, exemplifying the true relations of culture and subordinating intellect to soul, shall hallow your conscious labors, and your scholars be persuaded to purify for eternity what is first to be devoted to mankind.

From the Report for 1861.

Pages 114, 115, 116. It is true only in a narrow and technical sense that the teacher is in the place of the parent. For all that makes character, as well as for all the amenities of manners, the home is the school ordained of God, and the parent can delegate his trust to no other. When this has been neglected, the school may indeed offer some check to the development of bad tendencies, but it will not be a permanent one. There is no natural affection to enforce the appeal, no sacred charm, such as invests the thought of home, to stimulate to strong endeavor. Where centres a child's love is the best atmosphere for the tender growth of the moral sentiments. From the lips that God has made seem almost infallible to the child's apprehension, will best come the precepts that are to guide his life. In all that respects moral and religious culture, therefore, the school must be secondary and auxiliary to the home; and how easy and delightful the teacher's task where respect and trust have become habitual, obedience a second nature, and all the home-bred virtues of well-trained childhood shining in the features and manners, give surest evidence of parental

care and wisdom. The child who has been thus carefully nurtured at home is an acquisition to any school, for unconsciously he is the teacher's best ally. It is an example confirming precept.

But has the school, has the teacher no responsibility for the *moral culture* of his pupils? Are his duties exhausted with text-book instruction? I think that while he will consider it the chief *object* of the school to give instruction in the various branches of study, he ought also to remember that moral and religious culture are the higher parts of education, and that though the home is their appropriate school, it is his duty to aid the home training in these respects with all the means in his power. What appliances can he use? In the first place, the intellectual discipline is in itself an aid to moral culture; for the moral and intellectual parts of our nature are so intimately connected, thoughts and sentiments are so combined, that the growth of one must affect the other. Besides, there are often opportunities furnished by the lessons of the day to suggest a useful moral; as the character and conduct of some person in history, a passage in an author studied, or a single word charged with moral meaning. A class will listen much more readily to familiar talk excited in such a way, than to any formal discourse. But the latter may be well employed on suitable occasions, as when some serious misdemeanor has been brought to the notice of the whole school, or when some important rule has to be enforced, or when some unusual event breaks the ordinary course of school life. The teacher can readily pass from the particular occasion which has excited remark to a wider application.

But by far the most powerful means which a teacher, or any one else who wishes to influence others can use, is example. Without it precept is powerless. The teacher must himself be what he urges upon his pupil. How unfortunate for him and his charge, if his careless conduct, or hasty speech, or prejudice, or lack of sympathy with youthful feeling, turn the edge of all his counsels and make them of no effect.

The theory of our public schools does not include much in the way of direct religious instruction. But some influence they must have, either religious or the reverse. Not merely on the ground of justice to the parents, but also on moral grounds connected with the child's character, I believe that the faith of a child in the religious ideas in which he has been educated, should never be weakened or suspicion thrown upon them. However useful free inquiry, self-prompted and honest, may be to him when he comes to maturity, in childhood at least, any loosening of religious opinions by others would be in the highest degree dangerous; for the morality of a child is so directly built on his religious belief, that any shock given to the one would surely injure the other. Hence I think the religious bias given at home should not be interfered with at school or

anywhere else. But the religious *spirit* developed at home may certainly be fostered at school. The first, best lessons of religion, reverence and love, may be impressed upon the heart; not so much by direct instruction as by general influences, tending to awaken whatever there may be of natural susceptibility to such impressions. As plants depend for half their lives on unseen elements in the air, so in the moral atmosphere invisible and subtile agencies are ever at work to elevate or debase. Here are needed the sharpest observation and the finest analysis. He who can command the elements of this atmosphere, though he seem not to utter a word, will most successfully teach the great lessons of religion and all the finer graces of a virtuous character.

From the Report for 1862.

Page 16. With due allowance for the material he works on, the school is made by the teacher. It bears his stamp and seal. The committee may scheme and plan, but the schoolmaster alone can make what is really of any value in their schemes and plans take root. We know how much the best efforts of the best teachers are limited by the necessary routine of each day, and the close pressure of large and numerous classes on their time. But we are glad to see that they are able to bear up against these obstacles, and to break in some degree the level of their work. One or more of the masters are interesting themselves in the etymology of words, as throwing light on their meaning; another presses upon us the necessity of more definite attention to articulation. While the race after novelties will ruin any school, there is no school that will not profit by occasional novelty in the manner and details of the instruction. It may be worth while now and then to get a spark by cutting off the regular flow of the current. A quick, piercing, unexpected question will sometimes startle a boy into thinking, who would otherwise comfortably drowse over a lesson which he had (as he supposed) sufficiently learned, and had filed away in a dark pigeon-hole of his memory.

From the Report for 1863.

Pages 4, 5. During the year a plan was digested and adopted by which the college course is separated from the high school course, except in those particulars in which the studies of both are necessarily coincident. Whatever may be the general opinion, now or hereafter, as to the judiciousness of the plan of study laid down in the high school course, it can no longer be said that it is made subordinate to the college course. It embraces no more than, in the opinion of the committee, it is desirable

for all children to study whose worldly circumstances permit them to remain at school the necessary time. Some will object to Latin and French, some will object to the physical sciences. Some will say that girls need to be "prepared for domestic life," and some that boys should be "prepared for business." Fortunately the greater part of our people are capable of understanding that a high cultivation of the mind and taste, and a moderate acquaintance with science, history, and the two most useful foreign languages, do eminently fit men and women to perform their part in life, "justly, skilfully, and magnanimously," and with more pleasure and advantage to themselves and to the world.

Considerable trouble is occasioned to the high school committee and teachers, by frequent applications for an excuse from some part of the prescribed course. When such applications have been grounded on health so feeble or delicate as to require indulgence, a remission has been granted, though not without a physician's certificate to the necessity. But such reasons as a want of taste for a particular branch, or its inutility in that line of life which a pupil expects to follow, can never be admitted; because nothing is put into the course which requires a peculiar taste, and because the preparation for life at which we aim is a general and not a special one.

From the Report for 1864.

Pages 12, 13. An opinion prevails somewhat extensively that too much work is required of the pupils in the high school, and there is also an impression that the amount of work required is now greater than it used to be. With respect to this last point we can say decidedly that, so far from more being required now than formerly, the contrary is true; that the tasks imposed are not only less, but very considerably less. The question remains, however, whether too much is not still required; and it is therefore necessary that we should state distinctly how much study we exact, and how much we find to be given.

The pupils of the high school spend in school, during the first five days of the week, two hours and a half in recitation, and one hour and three quarters in study. They are expected to study two hours each of these five days out of school, excepting the boys of the higher college classes, who may it is judged, safely be required to study as much as three. Two hours of study is all that can be required of girls, who do not take as much active exercise as boys, and have also domestic occupations which boys have not. We may fairly demand, however, that these two hours shall be faithfully spent, away from distractions, and with real concentration of the mind. This rule is made for the average of the girls, and assumes the possession of an average amount both of health and of mental capacity. There are pupils in the school who are not up to the average in

either respect. We are willing to remit a portion of the studies in every case when a physician so advises, and have actually excused one-sixth of the three upper classes from one of the three daily lessons. In so doing we do not, as has been said, practically confess that our rule is too hard. The rule is made for the majority, and it is not strange that so large a number as the sixth we excuse should be in the minority as to health or strength.

These are our general views and principles, to which we have nothing to add, except that we recognize with all rational people such truisms as the paramount importance of health, and that it is wise to be on the safe side and to be satisfied with too little rather than run the risk of demanding too much. But we think, while admitting and proclaiming these obvious maxims, that there are one or two others which it may be well to join with them. The intellectual education of a child is of importance enough to be pursued seriously and steadily. It is not of *less* consequence than amusement, but is a child's principal business. Health cannot be preserved without bodily exercise, and the habits of a child in respect to exercise are not much under the control of the schoolmaster. Health may be injured as much by exposure to the night air, and by late hours at parties and consequent insufficient sleep, as by evening study, and injury received through indulgence in pleasure is often set down to the account of school tasks.

From the Report for 1865.

Pages 7, 8. Our schools are now so numerous and require so much attention, the unsettled questions pertaining to methods of education are so various and so pressing, that it would be of great advantage if a general superintendence could be assigned to one competent man. The duties of such an officer would be to study the public school system, both of America and of foreign countries, and suggest improvements in our own; to obtain a personal knowledge of the condition of all our public schools, with a view to bringing all of them as nearly as may be to an equal standard of efficiency; to advise the teachers and the school committee on the best methods of instruction and discipline; to contrive means for bringing under instruction that large number of children which, in a place populated to a considerable degree by foreigners, will always seek to evade it, or be deprived of it by their ignorant parents; and to consult with the proper agents of the city government as to the building and bettering of schoolhouses, and the methods of best securing the health and comfort of pupils and teachers. Such an officer, supposing him to be possessed of the requisite qualifications, would undoubtedly be of very great use. School committees, granting them to be always constituted of the best materials,

are constantly changing. If a man who is busily occupied undertakes to do all that he can to be useful, he commonly finds the labor too much for him, and (supposing him not to be dropped by his fellow citizens) soon retires. The fair performance of only the routine duties of the place demands in Cambridge the devotion of a great deal of time. This time should be and is most cheerfully given, but a great deal more time would be required of him who would thoroughly master the subjects with which he has to deal, — in fact all his time. We think, therefore, that we cannot better make up for the deficiencies of which we are conscious ourselves than by recommending to our successors to consider at once the expediency of establishing the office of superintendent of public schools.

From the Report for 1866.

Page 8. All the appointments and surroundings of the places where children are to be taught and trained should conduce to cleanliness, cheerfulness, and good taste. These things are not only important as a means of bodily soundness; they are also necessary to a healthful tone of mind and good morals.

Page 9. It is a fact grounded in the laws of our mental constitution, and well supported by experience, that external surroundings have a very intimate relation to the aptitudes of the mind and the tone of the feelings; and there is no period of life so susceptible to these external influences as that of childhood.

There is no expenditure provided for by the public treasury so remunerative as that demanded for the support and proper furnishing of our public schools. There is no public interest, material, social, or moral, that is not directly promoted by their efficiency and success. Property becomes not only more secure, but more valuable, in proportion as their resources are developed. Life is richer and more rounded in those communities which make largest and most ample provision for their wholesome accommodation. And, in any event, it is difficult to see that it will cost more to build and equip suitable schoolhouses, than to multiply police stations, and furnish houses of correction. A community that refuses to make a generous outlay for the culture and training of children, will be forced to draw on what it has thus unwisely withheld to create and sustain almshouses and prisons. If it will not strenuously endeavor to develop the better qualities of the rising generation, it will be compelled in the end to put forth its strength in the vain attempt to suppress the violent manifestation of the worse. We are persuaded that this form of public economy will prove ruinous waste in the long run,— waste, not of our material substance alone, but of the intellectual and moral life of our people.

From the Report for 1867.

Page 17. Your committee have seen with pleasure, even in the primary schools, a laudable disposition on the part of many teachers to interest their children in the study of the wonders and beauties of outward nature, and to give them simple and intelligible instruction in regard to the phenomena of the world in which they live,—instruction which the natural curiosity of children renders interesting at the very earliest age, and which is of the utmost possible value in training the senses, and opening the mind to the reception of higher truths at a later stage of development. Your committee recommend that this tendency towards giving a living interest to the instruction in the primary and grammar schools be encouraged, by promoting what is called "object-teaching," by giving facilities for the forming of small museums, and by the introduction of simple and inexpensive physical apparatus. Whatever tends to render these schools more interesting and more valuable to the pupils, will so far tend to render the discipline milder.

Page 18. Careful regard should at all times be had, in arranging our public school course, to the future destination and future wants of the pupils. The high school is not called upon to rival a college in the extent of its work. It should rather be its ambition to carry out a plain, practical, and thorough training; such as shall, on the one hand, prepare young men and young women with just the kind and amount of knowledge that they will find useful on their entrance into life, while it implants in them a taste for intellectual pursuits, which will inspire them to carry on their own education after school life is over; and, on the other, shall furnish a firm and solid foundation to those who pass on to the higher institutions of learning.

From the Report for 1868.

Page 12. The laws of the Commonwealth expressly authorize the school committee to "dismiss from employment any teacher whenever they think proper;" but it has not been usual to exercise this power at any other period than that of the annual election, except for specific and grave reasons. If dismissed before the expiration of the year for which he or she was elected, the teacher would have a moral though not a legal right to ask that good cause should be shown for a seemingly harsh procedure. But it is the bounden duty of the school committee to choose the best possible teacher; and they are guilty of a dereliction of duty if they appoint one of inferior merit, solely on the ground that he or she has held the office, though probably unworthy of it, during the previous year. Nothing would be so injurious to the schools as the right of any feeble or indolent

teacher to cling to his position like a barnacle to a ship's hull, because he unluckily once found a place there, though he has never been anything but an impediment to the ship's motion.

The best efforts of any incumbent can be secured only by the possibility, and even the probability, of being displaced just as soon as his efficency is diminished. We cannot tolerate merely negative merit; not to do harm is not enough; he must do good. And the right of displacement must not rust by disuse; it must be freely, though never wantonly exercised.

At the meeting of the school committee April 1, 1868, Mr. Edwin B. Hale was elected superintendent of schools. He entered upon his duties May 14. The following is from his first annual report:

Pages 26, 27, 28. In accepting the office of superintendent of public schools, I was not ignorant of the arduous duties, and peculiar difficulties connected with it. I did not forget that the office itself was with you an experiment, tried with many misgivings, doubtless, even on the part of those whose votes established it. I supposed that many, regardless of the merits or demerits of the incumbent, might expect at once manifest and important results. It occurred to me that some might look for the early introduction of plans of educational reform — of methods and systems before unknown, but which would spring into existence as the natural result of the establishment of the office. If any have entertained views such as I have described, they have had, or will have, ample opportunity to correct them.

For myself I made no such mistake. I was aware of the fact that many who have given to Cambridge its high literary renown, have from time to time, been connected with the school board; while many others, known for their professional success or for their prominence in business circles, have also aided in moulding the present school system. It may well be supposed then, that I am called to this work to carry out that which you have inaugurated, rather than with the hope that I am to devise new plans, or introduce immediate reforms. Here, however, I would not be misunderstood. I trust we shall all be watchful lest the rapid strides with which the cause of education is advancing shall leave us far behind. It is no time to be satisfied with the present. The busy thought of the leading educators of the day, moulded into a form available to all who are willing to be learners — the improvements in school buildings, school furniture, the classification of pupils and methods of teaching, all demand of us earnest effort.

From an observation of a few months, I am prepared to say, that for ability, and for fidelity to the great trusts committed to their care, the

teachers of Cambridge will compare favorably with those of the other cities and towns in this vicinity. It were folly to assert that all are equally worthy and successful; such a statement would be true of those of no profession nor occupation. What I do assert is, that in each of the grades, a large proportion of all are well suited by nature, by education, and by experience, for the work they have undertaken.

Wherever in the selection of these teachers great care has been exercised, it is certainly worthy of imitation by all having the responsibility of appointments hereafter. Incompetence in those employed in other occupations may, perhaps, be pardoned, since frequently no higher interest is involved than that of dollars and cents; but who shall estimate the loss to a community, when its children are instructed by those possessing neither the general ability, the tact, the force of character, the elements of moral strength, nor the quick sympathy with childhood which distinguishes the superior teacher?

In view of the importance of obtaining teachers of experience joined with the desire we must all feel to aid those educated among us, would it not be well at no distant day, to establish a normal or training department, where the graduates of our high school desiring to teach, might in a measure prepare themselves for their work?

From the Report for 1869.

Pages 17, 18, 19. Next to the moral discipline of our schools, there is no question of more importance than that of the studies pursued in them. In fact the questions of mental and moral discipline are in great measure one. A right mental discipline is largely a good moral one. The difficulties of the latter will, many of them, disappear with a right treatment of the former. Not only will a natural method of mental training be healthful and stimulating to the intellectual faculties, but it will help to keep the temper happy and sweet. Disgust and weariness with monotonous drill is the parent of much restlessness, negligence, and mischief. A child interested in its work is not a troublesome one, and that school will least task its teacher's patience where the daily work is suited to the natural capacities and wants of its pupils.

It should be understood that a plan of study is not intended to act as a restraint upon a teacher. It says "thus far" only in a given direction. It merely indicates the least that should be done.

A natural scheme of education will make its basis as broad as possible. A child is by nature and necessity a lover of all knowledge. He is placed in a strange and wonderful world, and his first need is to make himself acquainted with the common objects around him. To see

and learn to call by name is his first task. Classification and comparison, the study of laws and sciences, come as late in the history of the individual as in that of the race. "Facts, with little reasoning," should be the motto for the first half of a course of education; "reasoning upon facts," for its last part. Selection of special objects of study belongs, too, late in the stage of development. Not till facts are gathered from all branches of knowledge, can the mind show any natural bent or a wise selection be made.

In the early stages of education, including the primary and grammar schools, the elementary facts of all branches of knowledge ought to be taught. The only selection admissible is that of the near in preference to the remote. Things visible and immediate must first be known and named. The statement that oxygen and hydrogen combine to form water has little meaning to a child, because the elements are abstractions; but anything about the transformations of vapor, dew, frost, rain, snow, and ice interests him for he sees some of them every day. Sensible objects and their pictures are the chief food of a child's mind; perception and imagination, the chief faculties to be addressed.

Nor should the studies of one grade be regarded merely as a stepping stone to those of another. The plan for each should be made suitable to the wants of each. The studies of the grammar school should not be merely what are necessary for admission to the high school, nor those of the primary merely the requirements for entering the grammar school. Each should be complete as far as it goes. Education, and not the passing of examinations, is the end of school training. Any system which fails to meet the wants of each age and keeps artificial ends in view, will not only deprive the great majority of children of the chance of gaining important knowledge, but will fail to stimulate healthy enthusiasm.

Page 22. The teacher, also, hardly less than his pupils, needs the freshening influence of a wider range of topics upon which to communicate with them. His narrow book routine is stifling. He needs constant contact with nature and real objects to counteract its poison, and to bring him into closer sympathy with the minds of his pupils.

Page 39. The following is from the report of the superintendent of schools: —

We still have in all our grammar schools the antiquated system of large rooms; while, as heretofore, nearly all our primary schools are organized on the same general plan and are ungraded. It is mortifying to be obliged to chronicle such a fact but truth compels it. Had this system any advocates, or even any apologists, it might be well to notice some of the evils which attend it; but this is not now necessary, since all who are conversant with school matters are ready to condemn it most

unqualifiedly. I make the statement most unhesitatingly, that as regards the instruction or discipline of our schools, the plan of large rooms is wrong in principle and disastrous in results. If now this view be correct, if the present system be recognized as wrong, why should we not commence at once to apply the remedy by changing it for a better one? The city of Cambridge expends annually, merely for instruction in its public schools, nearly $100,000; this is a large sum, and the labor which costs so much should be so employed that the best possible results shall be secured. This is true economy, anything else is wasteful expenditure.

Page 44. With each added year there seems to be a growing interest felt in the important facts connected with our schools, and hence judiciously prepared tables of statistics, if not of general interest, are yet carefully examined by those especially interested in the welfare of the schools. We should have a system of records that shall preserve all items of importance and those of importance only. We ought to be able at any time to obtain all essential facts or figures, or anything relating to the real history of the schools.

Page 47. In the month of September last I recommended the establishment of a training school. The suggestion met with your approval, and a committee was appointed to take the subject into consideration. In October that committee submitted a report strongly recommending the establishment of such a school, and also detailing the plan proposed for its organization. This plan met with the hearty approval of the Board, and a committee was appointed to carry it into execution. Arrangements are now nearly perfected; teachers have been appointed, and the month of February has been fixed upon as the time for opening the school.

From the Report for 1870.

Pages 13, 14. The power that moves a school is not so much the far away law of the State nor of the committee, but the nearer and more direct force of personal influence. The larger and freer and better the personality can be made which reigns in the schoolroom the better. The theory we advocate would be to give the teachers the greatest freedom, and to hold them to the closest responsibility. Teachers are placed in their chair to rule and teach the scholars. That responsibility is theirs alone, and not divided with the sub-committee in charge of the school. The office of the committee is not that of sustaining the order and discipline of the rooms, but the higher one of inspection, supervision, regulation, and of disciplinary interference only in extreme cases. It is to be presumed that the teachers are competent persons, and the school system should put the class into their care, with as little restriction as possible, and hold them responsible for success.

And so with regard to the method of instruction; the "text-book" and the "course" should neither be imposed nor followed with an iron rigidity. The teacher should have resources of his own. He should continually freshen his exercises with original work of his own introduction. It is not the text-book that is to be taught, but the study.

Page 24. The following is from the report of the superintendent of schools: —

I can conceive of no question relating to the schools of higher practical importance than that which has to do with the appointment of instructors. There is no other possible way in which the schools of this city can be so directly and so materially improved as by seeing to it that none but efficient teachers are appointed to the vacancies that may occur. It is of infinitely more moment that we have good teachers than that our text-books be admirably adapted to the purposes for which they were designed, that our schoolhouses be commodious and elegant, or that our school legislation be wise and judicious.

Page 34. Teachers begin to appreciate the fact that oral teaching — oral lessons and illustrations — must have a prominent place in connection with every recitation, whether it be reading, the "tables," or other branches. I am sure that I am correct in claiming that there is less hearing of lessons, and more real instruction than ever before.

Page 36. Another subject was introduced, which was indicated by adding to the rules and regulations the following: — "The composing and writing of sentences shall be begun with the lowest class, and continued as a frequent exercise through the course."

This is a step in the right direction. The design is to enable the child, through the instruction and practice which will now be given, to express neatly and correctly any simple idea he may have in his mind.

From the Report for 1871.

Page 3. It is hardly possible to overestimate the benefit that has resulted from the alterations in the structure of some of our schoolhouses, by the division of large halls into rooms of the size proper to accommodate the classes of a single teacher.

Page 4. The present system as to corporal punishment is believed by some members of the committee to be in every respect judicious. The resort to force is so carefully guarded, and is held to so strict a responsibility, that it can only be a last resort; while there are cases in which all other means fail, and the alternative is the dismission of the pupil to vagrancy and ultimate ruin. It is urged, in behalf of this system, that all government must and should rest upon force, but with so many intermediate springs that it should be brought into play only in

stress of need. That this necessity can become very rare, is already demonstrated in our schools, in which probably the number of instances of bodily chastisement, during the last year, was considerable less than the number of teachers, perhaps even less than the number of schools.

Pages 15, 16, 17. Grammar is taught to very little purpose to children who know no language but their own. The proprieties of speech and writing are never learned by the study of grammar in school. The habit of correct speaking is best acquired by association with persons who use language with accuracy and elegance, and where this cannot be, conversance with good books is the only remaining resource. Reading an entertaining and well written volume of two hundred duodecimo pages, would teach a child more of practical grammar than he would acquire in six years' study of a text-book.

The departments of geography and history lie equally open to unfavorable criticism. Names and dates that are sure to be forgotten it is useless to learn. In history the details of obscure and non-decisive battles, the succession of insignificant dynasties, the mere lists of rulers or statesmen of whose character and influence nothing definite is given; in geography, names of places with which the scholar will never have any association whatever, — are of no more worth than old school or college catalogues. If it be a tonic for the memory that is needed, these last would answer fully as well, and would cost less. We would, indeed, have these branches deprived of none of their importance in our schools. On the other hand, we deem them of the very highest magnitude and interest. But we would have history studied in the great march of events, — in the revolutions and the progress of intellect, civilization and culture; in the establishment, growth, and decline of the world's great religions; in the lives and influence of illustrious and typical men. And as for geography, we would lay prime stress on the astronomical and physical relations, laws, divisions, and phenomena of our planet, and would have intimately associated with them the names, sites, and peculiarities of empires, kingdoms and states, of all important towns and cities, and of all regions of earth and bodies of water with which the pupil can by the remotest probability be brought into connection in reading, or travelling, or business.

While there is a great deal of time wasted in our schools, and while much is studied that need not be studied, instruction with reference to the objects with which children are in contact every day, and all their days, is almost wholly omitted. In a few of the primary schools, especially in those which have been recruited from the training school, some simple object-lessons are given, and in our grammar schools there are teachers who avail themselves of every possible opportunity to impart simi-

lar instruction. But it is not contemplated in our system, except very inadequately in the high school course, to furnish any definite teaching about common things and the surrounding world. This is too large a subject to discuss at the close of a report already longer than usual. We would merely suggest that, if precious time can be saved by shortening the process of learning to read, and by omitting useless branches, there is a whole world — full of objects adapted to awaken and feed curiosity, and demanding not a life time, but almost an eternity, to know them well — into the knowledge of which we now hardly begin to initiate the children under our charge, but in which they can be made learners only to their highest benefit and their enduring happiness.

Page 25. The following is from the report of the superintendent of schools : —

And here I desire to say that the favored opportunities for conferring the greatest possible benefit upon the schools in any community are the occasions when teachers are to be appointed to fill existing vacancies; for we do, after all, always come back to the idea that the school will be just what the teacher makes it.

Page 35. I believe in the general excellence of our grammar schools. I think I see most evident signs of progress in the character of the instruction. For myself, I believe in thoroughness, and thoroughness which comes from a reasonable amount of hard, patient drilling. And yet I have endeavored by every means in my power, by the character of my examinations, by suggestions, by private conversations, by remarks in meetings of teachers which I have held; in these, and in other ways, I have endeavored, so far as possible, to eliminate from the instruction useless technicalities and meaningless rote-work. I think something has been accomplished. I like to feel that the instruction is better than ever before,— broader, more practical, more intelligent. In the use of text-books there is now less to complain of than formerly. We aim to make text-books "servants, not masters."

From the Report for 1872.

Page 5. From the high school to the primary schools there has been a steady advance in the way of bringing in thought and casting out mere routine. More attention is given to the culture of the scholar's mind through his senses. There is less confinement to the study of books and to recitations from memory. The teacher is more true to the name, and is less a hearer of recitations. Books on natural science are in all the schools. Drawing is taught in all. Variety is given to the reading by supplementing the common readers with other books or with newspapers,

that there may be more interest in this fundamental exercise, and that the pupils may learn to read at sight.

Page 6. Our system seems to need vacation schools, which should be under other than our regular teachers, and in which the hours and methods of study should be adapted to the season.

It is a cause of great regret that only a small portion of the children who enter the grammar schools finish the course in them. To encourage a longer continuance in school, the committee have decided to give a diploma to those scholars who shall conplete the course of the grammar school, and whose conduct shall have been satisfactory during the last year.

The following is from the report of the superintendent of schools: —

Page 24. Much is now required of a teacher of a primary school. She should be able to control easily, winning obedience rather than enforcing it; she should understand the laws both of the physical and mental growth of the child, that she may do no violence to the one or the other. She should be able to make the schoolroom attractive, that the pupil may not, as often happens, acquire a dislike for school which years cannot remove. Let the teacher, as far as possible, study the special nature of each child, that she may adapt her methods to his peculiar wants; for our school systems are necessarily hard and inflexible, and this should be neutralized by the excellence of the instruction which each pupil shall receive. Let the teacher strive to create in the child a love for learning; for the work of education consists chiefly in giving a thirst for knowledge, and in teaching the means of gratifying it. It is still too often forgotten that we are chiefly indebted to correct habits of observation for any acquirements we have made; but such is the case, and hence the importance of cultivating the perceptive faculties. All the knowledge of material things must come through the senses; and long before the child enters the schoolroom his education in this direction begins. In the acquisition of language, too, he makes wonderful progress in the few years of his life previous to entering school, but not unfrequently when he becomes a pupil his growth in this direction is dwarfed and stunted by the unskilfulness of those in whose care it is his misfortune to be placed. In this subject of *language*, it is universally conceded that great weakness exists throughout all the grades of our schools.

With the design of giving some aid in this direction, so far as regards the primary schools, that most excellent juvenile magazine "The Nursery" has been placed in every schoolroom. It is expected that it will be found a valuable acquisition.

Pages 28, 29. Every day more is demanded of teachers in the way of intelligent teaching; and the intelligent teaching of our time seems to

be characterized particularly by one happy symptom — the tendency to simplify the beginnings of natural science so that little children may have some real knowledge of, at least, plants and animals, which are the familiar representatives of natural science to them. But it is only the student of science who can properly simplify it, and therefore the importance of a systematic study of zoölogy and botany — so far as they may be unfamiliar — by those intending to be teachers.

That it may not be left to the inexperience of teachers to discover, with labor to themselves, and with injury to their pupils, the laws which govern mind and body, the subjects of intellectual science and physiology are included in the course of study for the training school. The development of the mental powers in the average child is so sure to be in certain chronological order that the facts might almost be tabulated for a teacher's daily guidance. A knowledge of these is of the highest importance to success in teaching. Many a lesson is a failure from the simple fact that the teacher has overestimated the reasoning faculty in the child, has miscalculated his power of abstraction, or has undervalued the hold upon him of things actually seen, touched, tasted, or heard.

From the Report for 1873.

Page 5. Mr. Edwin B. Hale, superintendent of public schools, resigned his office the first of October. The committee were fortunately able to secure the benefit of a part of his time until the first of January, 1874. Mr. Hale was elected superintendent and began his work here early in the year 1868, soon after the city council, acting upon their own responsibility and not upon a request of the school committee, had wisely established this office.

A resolution was entered upon the records of the committee, expressing our sense of the great value of services rendered. The words of this record need not be repeated here. There is not one of the many improvements in our school buildings, not one of the changes in our remodelled courses of grammar and primary school work that has not been the better done by reason of his assistance. It is not too much to say that several of our best reforms would not even yet have been accomplished, if we had not had his constant supervision, great practical acquaintance with the best methods of teaching, and prudent regard for the burdens as well as the resources of the city. A simple enumeration of Mr. Hale's services would be a sufficient argument for the necessity of professional supervision.

The following is from Mr. Hale's last report: —

Page 19. The readiest means of improving the schools is found in selecting good teachers; and no surer way of injuring them has been dis-

covered than by placing the children in the hands of those who lack the important qualifications of a wise and judicious instructor.

Page 20. I can only express the hope that those having the schools in charge will not undervalue the importance of selecting only those who are qualified for the important work of moulding the minds and characters of the children of this city. Neither residence, personal needs, nor influential friends will supply the lack of actual fitness; although it is not always easy to convince either applicants or their friends of the truth of this statement. My own position in the matter of appointments has been to regard our own graduates as preferred candidates, and first of all, to urge their claims faithfully so far as I could satisfy myself that they were worthy of the positions which they sought, and no farther.

Page 22. There is a subject connected with this which I deem worthy of the attention of the next Board. There are in the different sections of the city a certain number of children of school age who are not truants, and are not guilty of offences for which they should be sent to any penal institution; and yet, because of their defiance of authority and for other causes, they are frequently suspended from school. Is it not an important question how far the interests of the mass of pupils should be allowed to suffer through the fault of the few who accomplish almost nothing for themselves, but whose influence is wholly bad upon the school of which they are nominal members? The question I propose is this: Is it expedient to organize one or more ungraded schools in which this class of children shall be taught, and which they shall be required to attend, instead of allowing them to divide their time, as now, between the school and the street, with positive harm both to themselves and to the school which is unfortunate enough to claim them as members? It may be found that there would be practical difficulties in carrying out a plan of this kind, but I believe the subject is at least worthy of consideration.

Page 24. In closing this my last report to your Board, I cannot forbear expressing my appreciation of the kindness and consideration which I have at all times received at your hands. It is worthy of remembrance and of record, that during a period of nearly six years no single incident has occurred tending in the slightest degree to mar the harmony which has at all times existed.

From the Report for 1874.

Page 3. Within the past year, upon the application of the school committee of Cambridge, the legislature has authorized the school committees of the State to appoint superintendents of schools and to fix their salaries. Availing themselves of this permission, the committee have elected to the office named, Mr. Francis Cogswell, formerly master of the Putnam grammar school.

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Books of Special Value to Teachers, 1890–109; 1892–247; 1896–71; 1897–74; 1898–69.
Cambridge Experiment, The, 1892–111.
Change of Teachers, 1881–33.
City School, 1886–17.
Classification and Promotion, 1881–29; 1891–25; 1897–61; 1902–52.
Commercial School, 1879–35; 1897–66.
Committee on Supplies, 1884–22.
Contagious Diseases, 1897–56; 1902–76.
Coördination of the Schools, 1898–52.
Corporal Punishment, 1889–39.
Course of Study, 1877–21; 1893–55; 1900–59.
Cuban Teachers, 1900–61.
Dedication of the New English High School Building, 1891–61.
Dedication of the Second High School Building, 1892–72.
Diplomas. Grammar Schools, 1881–31; 1894–29.
Discipline, 1878–16.
Drawing, 1876–49; 1883–9; 1886–24; 1889–32; 1892–41.
Drawing Schools, 1874–4; 1882–32; 1883–14; 1884–19; 1887–28; 1892–39.
Economy of Time, 1878–43.
English High School Building, 1892–122.
Enriching the Course of Study, 1892–87.
Evening High School, 1888–28; 1889–33.
Evening Schools, 1874–7; 1875–29; 1880–6; 1883–7; 1884–15; 1887–27; 1892–37.
Examinations, 1875–21; 1877–28; 1878–14; 1879–15; 1881–33.
Examination of Teachers, 1879–16; 1880–8, 24; 1901–79.
Examination Questions, 1874–17; 1875–40; 1876–57; 1877–35; 1879–57; 1890–100.

Expositions, 1876–50; 1892–4.
Fifty Years of Service,
Miss Ireson, 1892–193.
Mr. Roberts, 1898–45.
Mr. Barrell, 1901–76.
Free Text-Books, 1874–9; 1876–43; 1884–22, 48; 1885–81; 1886–25; 1887–21; 1891–23. Continued in each report.
Galveston Schools, 1900–84.
General Remarks, 1875–7; 1876–7; 1879–16; 1880–11; 1881–9; 1884–3.
Geometry in Grammar Schools, 1892–108.
Gifts to the Schools, 1892–214; 1899–37; 1900–77; 1901–36.
Grades and Classification, 1892–27.
Heating of the Schoolhouses, 1876–40.
High Schools, 1874–6; 1878–4; 1879–3; 1880–3; 1884–10, 44; 1885–4; (Brief History) 1886–8; 1887–23; 1889–23; 1892–28.
History of the English High School, 1892–83.
History of the High School from 1847 to 1895, 1892–49.
History of the Latin School, 1892–79.
History of the Schools, 1895–53.
Hopkins Fund, 1885–25.
How to use the Public Library, 1886–48.
Incorrigible Pupils, 1887–31.
Industrial Training, 1882–30; 1884–18; 1886–22; 1887–25; 1887–supplement; 1888–27.
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In Memoriam, 1896–31; 1899–31; 1903–32.
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Lectures on Psychology, 1894–50.
Lectures on the Weather Maps, 1894–49.
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Library and Schools, 1889–37; 1891–44; 1892–42; 1894–50; 1901–56; 1902–68.
List of Geographical Books, 1892–246.
List of Geographical Lantern Slides, 1893–103.
Long Service of Dr. Wellington, 1896–30.
Manual Training in Grammar Schools, 1894–32; 1899–38.
Manual Training Schools, 1891–79; 1894–54; 1898–54.
Masters' Assistants, 1874–4.

Members of the Committee who died During Service,
Mr. Conlan, 1883–43.
Mr. Nagle, 1885–3.
Mr. Kelley, 1899–30.
Memory Exercises, 1885–84; 1886–55; 1902–83.
Miscellaneous, 1879–40; 1880–28; 1881–35.
Mission of History, The, 1892–117.
Moral Training, 1882–33; 1883–11.
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Nature Study, 1893–33, 45; 1894–40; 1901–50.
No School on Saturdays, 1882–28.
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Physical Training, 1893–35; 1894–40; 1900–44.
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Plans of English High School Building, 1889–19.
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Portrait of Dr. Peabody, 1892–197.
Primary School Instruction, 1893–30.
Questions for Oral Instruction, 1875–40; 1890–99.
Questions for Vacation Schools, 1901–73.
Questions upon Books and Reading, 1878–53.
Reading, 1875–22; 1876–46; 1877–9, 23; 1878–17, 30; 1879–28.
Reading. A classified list, 1899–86.
Reading Books, 1881–27.
Reading and Reading Books, 1884–46.
Recess or no Recess, 1883–32; 1884–48; 1885–84.
Records of the Meetings of the School Committee, 1898–60; 1899–65 and from year to year.
Revision of the Rules, 1899–58.
Salaries, 1881–7; 1898–66.
Sanitary Condition of the Schoolhouses, 1876–18.
School Government, 1877–24; 1884–76.
Schoolhouses and Janitors, 1886–27.
School Hygiene, 1879–45.
School Records, 1876–45.
School Reports, 1896–33.
Seals of the City, State, and Harvard College, 1894–104.
Sentence Writing, 1876–47; 1878–18.
Sewing, 1877–9; 1878–15; 1879–16; 1889–31; 1892–41.
Special Report, 1892–27.

Special Teachers, 1892–92, 108; 1893–31; 1894–37.
Stamp Savings, 1902–57.
Statistics from Reports of Board of Education, 1884–40. Continued in each report.
Suggestions. Supervisors of Boston Schools, 1878–57.
Superintendent of Schools, 1874–3; 1875–10.
Supervisor of Primary Schools, 1892–92; 1893-30; 1894–41; 1895–48.
Teachers' Association, 1900–64.
Teachers' Meetings, 1879–39.
Temperance Instruction, 1883–13.
Text-Books, 1878–10; 1879–11; 1881–8; 1884–13.
Training School, 1878–5; 1879–5; 1880–5; 1882–7; 1883–30; 1884–21, 45; 1885–83; 1886–16; 1892–33. Continued in each report.
Tributes to Teachers of Long Service,
Mr. Williston . . . . . 1878–4; 1881–3, 35.
Mr. Wheeler . . . . . 1878–16, 46.
Miss Burnham . . . . . 1879–40.
Miss Tarbell . . . . . 1880–11, 28; 1882–10.
Miss Winnett, Mr. Mansfield . . 1881–34.
Mr. Magoun . . . . . 1881–34; 1902–78.
Miss Peirce, Mr. Mansfield . . . 1886–4.
Mr. Lincoln . . . . . 1890–20; 1896–30.
Miss Ireson . . . . . 1892–193.
Mr. Hill . . . . . 1893–26; 1903–33.
Miss Elizabeth E. Dallinger . . . 1893–49.
Miss Butler . . . . . 1894–44.
Miss Downing, Miss Webb, Miss Fessenden . . . . . 1896–30.
Miss Davis . . . . . 1896–49.
Miss Emily C. Dallinger . . . 1897–57.
Miss Jewell, Mrs. Dennis . . . 1898–44.
Mr. Roberts . . . . . 1898–45; 1899–30.
Miss Spare, Miss Hutchison, Miss Emerson . . . . . 1899–30.
Miss Kate Wellington . . . . 1900–55.
Mr. Barrell . . . . . 1901–76; 1903–38.
Mrs. Taylor, Miss Amelia Wright, Miss Laura Wright . . . . 1901–67.
Mrs. Mirick, Miss Stewart, Miss Carpenter, Miss Whoriskey . . . 1902–78.
Miss Ada H. Wellington . . . 1902–78.

Mrs. Rogers, Miss Dickman . . . 1903–38.
Miss Barbey, Miss Brown, Miss Stiles and Miss Emma A. Taylor resigned in 1903 after long and faithful service.

Truant Law as Amended, 1889–38.
Truant Officers, 1874–5; 1877–8; 1878–7; 1892–44.
Ungraded Schools, 1875–21; 1878–41; 1879–17; 1883–7.
United States Flag, 1889–41.
Vacation Schools, 1886–23; 1887–28; 1897–68; 1900–49; 1899–73; 1901–71.
Vertical Writing, 1894–44.
What are Schools for? 1879–31.
Women as well as Men, 1892–192.

Respectfully submitted,

FRANCIS COGSWELL,
Superintendent of Public Schools.

In School Committee, February 18, 1904.

Ordered, That the report of the superintendent as read and outlined by him be accepted and adopted as the annual report of the school committee for 1903, and that the secretary be authorized to append the names of the members of the committee thereto.

SANFORD B. HUBBARD,
Secretary.

Members of the School Committee for 1903

JOHN H. H. McNAMEE, *Chairman ex officio.*

WARREN P. ADAMS.
GEORGE W. BICKNELL.
CAROLYN P. CHASE.
PHILIP M. FITZSIMONS.
SETH N. GAGE.
SHERMAN R. LANCASTER.
MARY E. MITCHELL.
WILLIAM TAGGARD PIPER.
J. HENRY RUSSELL.
ARTHUR P. STONE.
CHARLES H. THURSTON.
ROBERT WALKER.
JAMES FRANK WENTWORTH.
CHARLES H. WILLIAMS.
CHARLES F. WYMAN.

APPENDIX

ORDINANCES

PASSED BETWEEN JUNE 1, 1903, AND APRIL 5, 1904.

An Ordinance in Amendment of an Ordinance Entitled "Duties and Salaries."

Be it ordained by the City Council of the City of Cambridge, as follows: —

Section 5, of Chapter 28, of the Revised Ordinances of 1892, as amended to November 8, 1899, is hereby amended by striking out the word "various" in the first line and inserting in place thereof the word "several"; also by striking out the words "at the City Hall" in the same line; also by striking out the word "two" before the word "o'clock" in the second line of said section, and inserting in place thereof the word "one"; also by inserting after the word "afternoon" in the second line, the following: — "provided, however, that during the months of June, July, August and September the said offices shall be closed at twelve o'clock noon"; also in the third line by striking out the word "left" and inserting in its place the word "kept"; also in the fourth line before the word "head" by inserting the words "board or"; also by striking out the words "or the board having charge of such departments"; also by inserting before the word "provided" the word "and"; also by striking out the word "however" in the second line as it now stands, and inserting in place thereof the word "further."

As amended the section aforesaid will read as follows: —

Section 5. On Saturdays the several offices shall be closed at one o'clock in the afternoon, provided, however, that during the months of June, July, August and September, the said offices shall be closed at twelve o'clock noon, and provided further, that in case of necessity, any office may be kept open until a later hour, at the discretion of the board or head of the department occupying such office. [*In force July 13, 1903.*

An Ordinance in Amendment of an Ordinance Entitled "Auditing."

Be it ordained by the City Council of the City of Cambridge as follows: —

Chapter 4 of the Revised Ordinances of 1892 is hereby amended by adding to the end of said chapter the following: —

Section 14. It shall be the duty of the Auditor to examine once a year, or as often as the Committee on Accounts may direct, the books,

records and accounts of the several departments and executive boards, and make his recommendations to the Committee of such modifications, improvements or changes as may be deemed necessary, for a proper accounting and interlocking of such accounting by all the departments and executive boards, with the books and accounts of the Auditing Department; and by request of this Committee, and with the approval of the mayor, it shall be his duty, and he shall have the authority to order and govern the installation of such modifications, improvements or changes. [*Approved December* 30, 1903.

AN ORDINANCE IN AMENDMENT OF AN ORDINANCE ENTITLED "AUDITING."

Be it ordained by the City Council of the City of Cambridge, as follows: —

Chapter 4 of the Revised Ordinances of 1892, as amended to November 8, 1899, is hereby amended as follows, viz: —

In Section 11 by striking out the words "within the last seven days" in the tenth line of said section and inserting in place thereof the words "before the twenty-eighth day."

In Section 12 by striking out the word "first" in the twelfth line of said section and inserting in place thereof the word "twenty-eighth."

In Section 12 by adding after the word "month" in the thirteenth line the following words: "Each bill and pay-roll must have the name, address and vocation of each person, organization, corporation or association to whom money is due and for what purpose."

As amended, the sections will read as follows: —

SECTION 11. The pay-rolls of City employees shall be made up each Saturday for the whole week, including that day, and the pay-days at the City Hall for such employees shall be every Thursday, except in case such day occurs upon a legal holiday, when the next preceding day shall be the pay-day. Other pay-rolls shall be made up to include the last day of each month; and the pay-day for the same and for bills shall be on the tenth of each month, or the day following if such occurs on Sunday or a legal holiday; and all executive boards shall hold regular meetings before the twenty-eighth day of each month for the examination and approval of bills, including pay-rolls certified as provided in Section 5 of this chapter.

SECTION 12. Executive boards and heads of departments shall approve all accounts and claims in their respective departments, shall keep a record of all contracts and obligations entered into by them, the dates of same, with the names of the parties and the amounts of such contracts and obligations, when the same are known, and also of the names of the persons whose bills are approved, and of the dates and amounts of said bills. Head of departments, and a majority of each of said boards, except the

School Committee, shall certify, by their signatures upon such bills, their approval of the same, present them to the appropriate committee of the City Council for inspection, and pass them to the Auditor on or before the morning of the twenty-eighth day of each month.

Each bill and pay-roll must have the name, address and vocation of each person, organization, corporation or association to whom money is due, and for what purpose.

All bills approved by the School Committee shall be certified by the Secretary, and at least three members of that board. No bill shall be approved by any board except the School Committee, except at a meeting of which all the members have been notified, and at which there is a majority present.

When any committee of the City Council has any doubt concerning the propriety or correctness of a bill presented to it for inspection, it shall, if the same be not satisfactorily explained, indorse its disapproval thereon, and report the fact of such disapproval, with the reasons therefor, to the City Council at the next meeting. [*Approved March* 18, 1904.

MAYORS OF THE CITY OF CAMBRIDGE

(From 1846 to 1904 Inclusive.)

James D. Green	From May,	1846,	to April,	1848
Sidney Willard	" April,	1848,	to April,	1851
George Stevens	" April,	1851,	to April,	1853
James D. Green	" April,	1853,	to April,	1854
*Abraham Edwards	" April,	1854,	to January,	1855
Zebina L. Raymond	" January,	1855,	to January,	1856
John Sargent	" January,	1856,	to January,	1860
†James D. Green	" January,	1860,	to July 24,	1861
‡Charles Theo. Russell	" July 31,	1861,	to January,	1863
George C. Richardson	" January,	1863,	to January,	1864
Zebina L. Raymond	" January,	1864,	to January,	1865
J. Warren Merrill	" January,	1865,	to January,	1867
Ezra Parmenter	" January,	1867,	to January,	1868
Charles H. Saunders	" January,	1868,	to January,	1870
Hamlin R. Harding	" January,	1870,	to January,	1872
Henry O. Houghton	" January,	1872,	to January,	1873
Isaac Bradford	" January,	1873,	to January,	1877
Frank A. Allen	" January,	1877,	to January,	1878
Samuel L. Montague	" January,	1878,	to January,	1880
James M. W. Hall	" January,	1880,	to January,	1881
James A. Fox	" January,	1881,	to January,	1885
William E. Russell	" January,	1885,	to January,	1889
Henry H. Gilmore	" January,	1889,	to January,	1891
Alpheus B. Alger	" January,	1891,	to January,	1893
William A. Bancroft	" January,	1893,	to January,	1897
Alvin F. Sortwell	" January,	1897,	to January,	1899
Edgar R. Champlin	" January,	1899,	to January,	1901
David T. Dickinson	" January,	1901,	to January,	1902
John H. H. McNamee	" January,	1902,	to January,	1904
Augustine J. Daly	" January,	1904.	Now in office.	

*Municipal year changed. †Resigned. ‡First elected by the City Council.

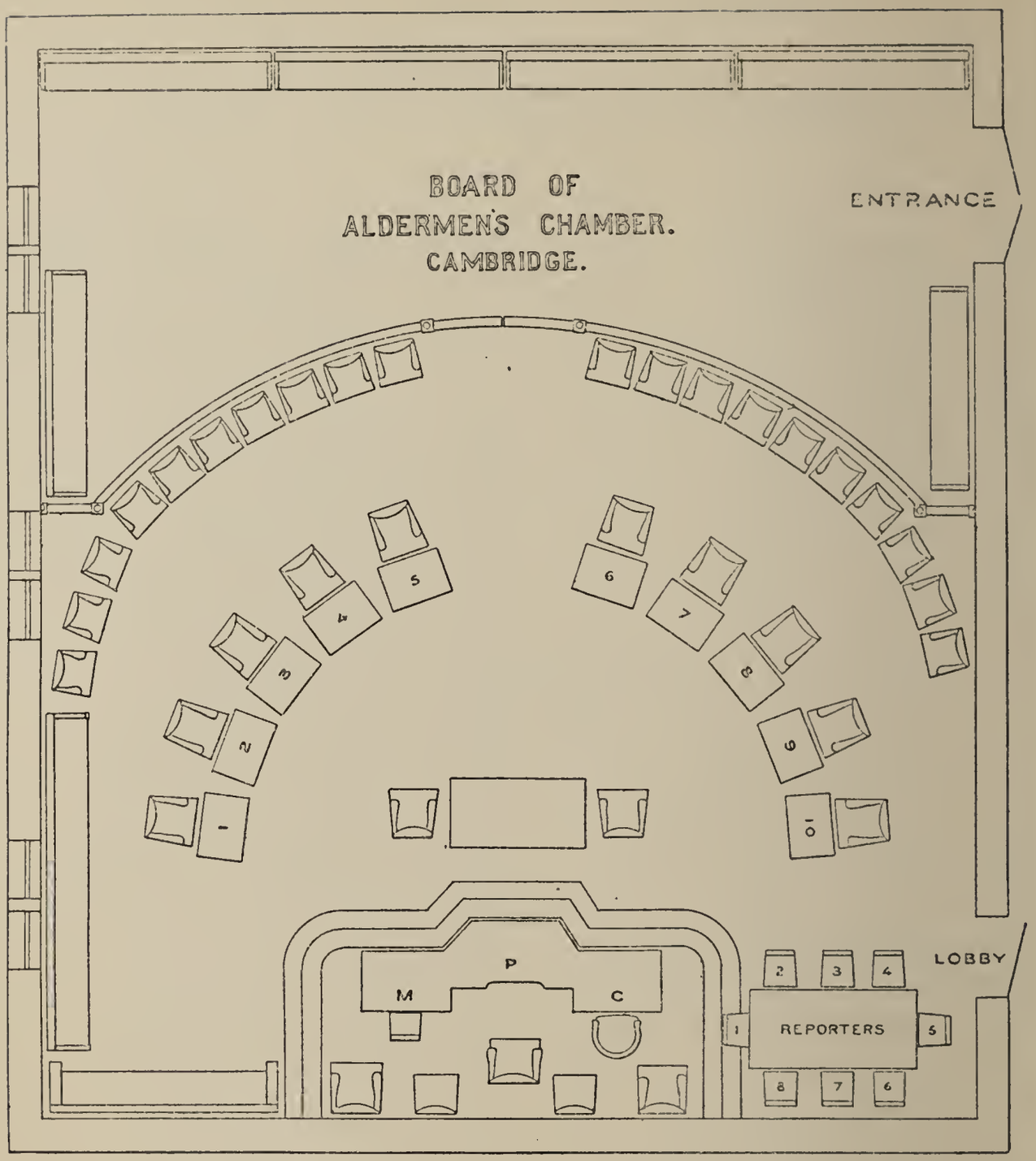
PRESIDENTS OF THE BOARD OF ALDERMEN

1888	Edward W. Hincks.
1889	John H. Corcoran.
1890	Alvin F. Sortwell.
1891	William A. Bancroft.
1892	William A. Bancroft.
1893	John R. Fairbairn.
1894	John G. Thorogood.
1895	John R. Fairbairn.
1896	John R. Fairbairn.
1897	Russell Bradford.
1898	Russell Bradford.
1899	Walter C. Wardwell.
1900	Walter C. Wardwell.
1901	George E. Saunders.
1902	James F. Aylward.
1903	*John W. Coveney.
	Timothy W. Good.
1904	John W. Coveney.

*John W. Coveney resigned March 10, 1903, and Timothy W. Good elected to the vacancy.

PRESIDENTS OF THE COMMON COUNCIL

1846 Isaac Livermore.
1847 John Sargent.
1848 John C. Dodge.
1849 Samuel P. Heywood.
1850 Samuel P. Heywood.
1851 John S. Ladd.
1852 John Sargent.
1853 John Sargent.
1854 John C. Dodge.
1855 Alanson Bigelow.
1856 Ezra Ripley. Resigned January 31.
1856 George S. Saunders. Elected January 31.
1857 George S. Saunders.
1858 James C. Fisk.
1859 James C. Fisk.
1860 Hamlin R. Harding.
1861 Hamlin R. Harding.
1862 Jared Shepard. Resigned September 17.
1862 Knowlton S. Chaffee. Elected September 24.
1863 George S. Saunders.
1864 George S. Saunders.
1865 John S. March.
1866 John S. March.
1867 Marshall T. Bigelow.
1868 Knowlton S. Chaffee. Resigned February 4.
1868 Henry W. Muzzey. Elected February 4.
1869 Henry W. Muzzey.
1870 Joseph H. Converse.
1871 Joseph H. Converse.
1872 Alvaro Blodgett.
1873 Alvaro Blodgett. Resigned June 17.
1873 Francis H. Whitman. Elected June 17.
1874 George F. Piper.
1875 George F. Piper.
1876 Frank A. Allen.
1877 Perez G. Porter.
1878 George S. Saunders.
1879 George S. Saunders.
1880 Charles Walker.
1881 Charles Walker.
1882 George H. Howard.
1883 George H. Howard.
1884 George H. Howard.
1885 Cornelius G. H. Bennink.
1886 John H. Corcoran.
1887 John H. Corcoran.
1888 Alvin F. Sortwell.
1889 Edward A. Bingham.
1890 Edward A. Bingham.
1891 Edward C. Wheeler.
1892 Herbert A. Chase.
1893 J. Henry Russell.
1894 Charles M. Conant.
1895 John L. Odiorne.
1896 John L. Odiorne.
1897 Albert S. Apsey.
1898 George E. Saunders.
1899 William F. Brooks.
1900 John D. Merrill.
1901 John D. Merrill.
1902 Thorndike Spalding.
1903 Edward E. Clark.
1904 Harry N. Stearns.



KEY TO BOARD OF ALDERMEN'S CHAMBER

CAMBRIDGE, 1904

P—John W. Coveney, *President.*

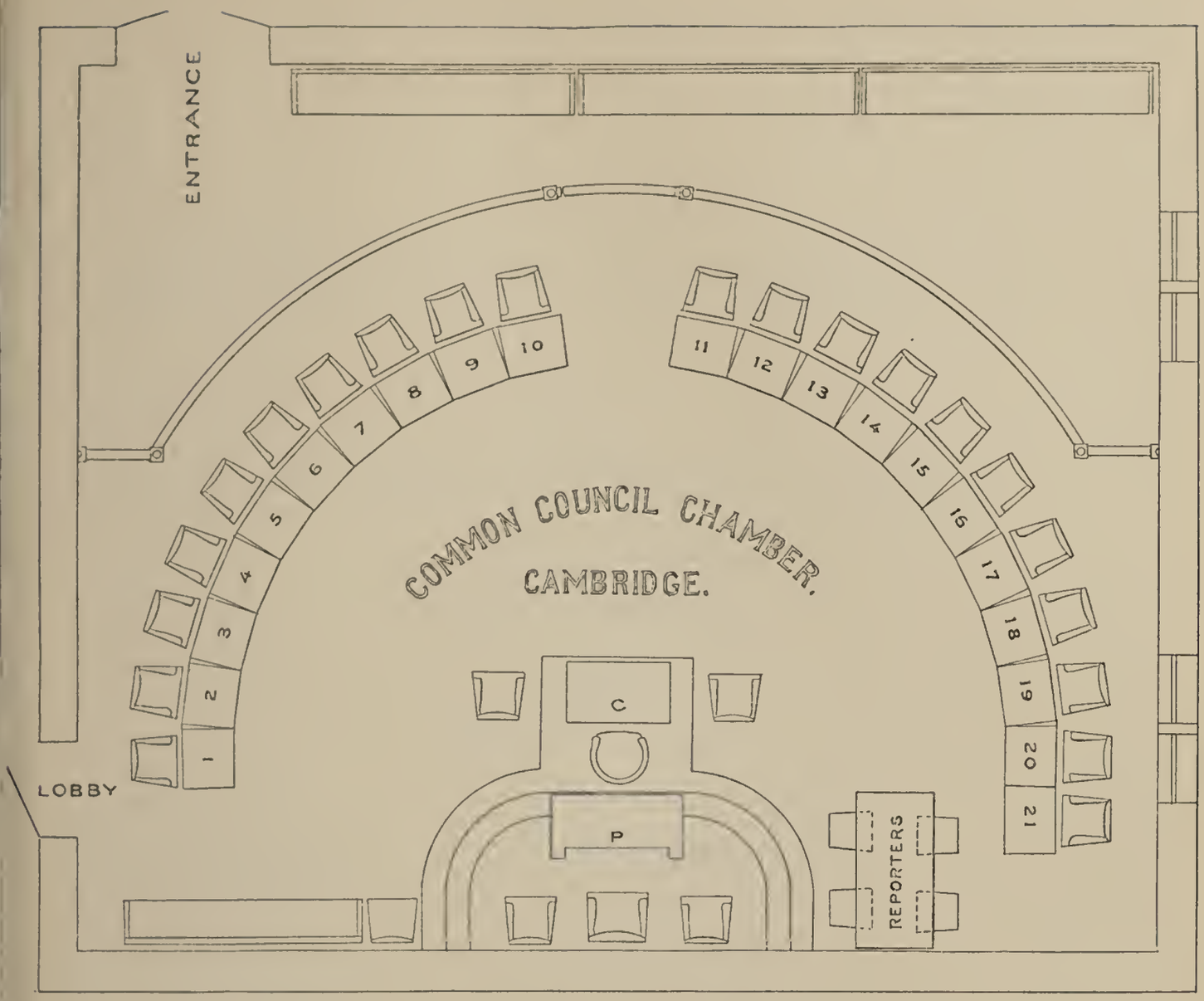
1	Alderman	Lake.	6	Alderman	Carstein.
2	"	Blodgett.	7	"	Harrington.
3	"	Allen.	8	"	Barry.
4	"	Barnard.	9	"	Davis.
5	"	Anderson.	10	"	Flynn.

C—Edward J. Brandon, *City Clerk.*

M—Frank T. Evans, *City Messenger.*

Reporters:

1	John B. Whoriskey, Boston Globe.	6	Jasper N. Johnson, Boston Journal.
2	J. Lee Robinson, Cambridge Tribune.	7	Louis F. Conant, Boston Advertiser and Record
3	Arthur W. Lloyd, Cambridge Press.	8	James W. Bean, Cambridge Chronicle.
4	James H. Cox, Cambridge Times.	9	Wm. P. Nickerson, Cambridge Sentinel.
5	Edgar L. Bean, Boston Herald.	10	George A. Hill, Associated Press.



KEY TO COMMON COUNCIL CHAMBER

CAMBRIDGE, 1904

P — Harry N. Stearns, *President.*

1	Councilman	Joel.	11	Councilman	Giles.
2	"	Monk.	12	"	Stephens.
3	"	O'Neil.	13	"	Walcott.
4	"	Wood.	14	"	Kneeland.
5	"	Meyers.	15	"	Elmore.
6	"	Caswell.	16	"	Thayer.
7	"	McSorley.	17	"	Cronin.
8	"	Downey.	18	"	Dinan.
9	"	Smithers.	19	"	Hogan.
10	"	Nelligan.	20	"	Harlow.
			21	Councilman	Reardon.

C — Edward A. Counihan, *Clerk.* William E. McAnaul, *Page.*

Reporters:

Philip R. Ammidon, Cambridge Chronicle.
John S. O'Brien, Cambridge Times.
Peter J. Nelligan, Cambridge Tribune.
Edward Grant, Cambridge Sentinel.

GOVERNMENT OF THE CITY OF CAMBRIDGE, 1904

Mayor

AUGUSTINE J. DALY, 51 Martin Street.

Board of Aldermen

President.

JOHN W. COVENEY.

John Allen	42 Second Street	Ward 1
William T. Anderson	65 Howard Street	" 7
Edward A. Barnard	11 Magazine Street	" 7
J. Edward Barry	347 Broadway	" 5
Warren K. Blodgett	7 Acacia Street	" 9
Hans L. Carstein	45 Cogswell Avenue	" 11
John W. Coveney	140 Otis Street	" 2
William R. Davis	349 Broadway	" 5
Michael H. Flynn	162 Columbia Street	" 4
Stephen H. Harrington	125 Antrim Street	" 5
Charles H. Lake	21 Ellery Street	" 8

Clerk.

Edward J. Brandon.

Messenger.

Frank T. Evans.

Regular Meetings on Tuesday Evenings at 8 o'clock.

Common Council

President.

HARRY N. STEARNS.

George B. Caswell	27 River Street	Ward 7
Daniel Cronin	133 Webster Avenue	" 3
Daniel J. Dinan	6 Winter Street	" 1
Jeremiah F. Downey	994 Cambridge Street	" 3
Samuel D. Elmore	15 Trowbridge Street	" 8
George A. Giles	8 Perry Street	" 6
Lester B. Harlow	153 Prospect Street	" 5
William M. Hogan	146A Spring Street	" 2
Harry W. Joel	10 Watson Street	" 6
James P. Kneeland	304 Main Street	" 4
Peter F. McSorley	122 Charles Street	" 1
Julius Meyers	417 Green Street	" 7
Sidney J. Monk	14 Centre Street	" 5
David J. Nelligan	173 Rindge Avenue	" 11
Thomas P. O'Neil	52 Montgomery Street	" 11
Maurice Reardon	182 Spring Street	" 2
John B. Smithers	90 Norfolk Street	" 4
Harry N. Stearns	64 Walker Street	" 9
George Stephens	53 Ellery Street	" 8
Farwell E. Thayer	44 Garfield Street	" 10
Charles Walcott	57 Lakeview Avenue	" 9
Russell A. Wood	1691 Massachusetts Ave.	" 10

Clerk.

Edward A. Counihan.

Page.

William E. McAnaul.

Regular Meetings on Tuesday Evenings at 8 o'clock.

COMMITTEES OF THE CITY COUNCIL

JOINT STANDING COMMITTEES OF THE CITY COUNCIL.

Accounts. Aldermen Flynn and Barnard; Councilmen Caswell, O'Neil and Meyers.

Assesssors' Department. Alderman Harrington; Councilmen Dinan and McSorley.

City Engineering. Aldermen Barnard and Davis; Councilmen Stephens, Monk and Hogan.

City Home. Aldermen Allen and Anderson; Councilmen Caswell, Cronin and Joel.

Claims. President Coveney, Aldermen Blodgett, Barry and Barnard; President Stearns, Councilmen Walcott, O'Neil, Dinan, Giles and Wood.

Finance. President Coveney, Aldermen Carstein, Davis and Blodgett; President Stearns, Councilmen Elmore, Meyers, Caswell, Downey and Walcott.

Fire Department. Aldermen Barry and Harrington; Councilmen Dinan, Monk and Thayer.

Health. Aldermen Anderson and Flynn; Councilmen Thayer, Smithers and Hogan.

Highways. Aldermen Lake, Anderson and Barnard; Councilmen Stephens, O'Neil, Harlow and Smithers.

Legislative Matters. President Coveney, Aldermen Barry, Davis and Allen; President Stearns, Councilmen Stephens, Elmore, Thayer, Reardon and Smithers.

Ordinances. Aldermen Flynn and Anderson; Councilmen Reardon, Monk and Giles.

Parks. Aldermen Davis and Harrington; Councilmen Giles, Wood and Joel.

Printing. Aldermen Barry and Harrington; Councilmen Stephens, Kneeland and Cronin.

Public Instruction. Aldermen Davis and Allen; Councilmen Walcott, McSorley and Cronin.

Public Property. Aldermen Barnard and Harrington; Councilmen Downey, Giles and Harlow.

Rules and Orders. Aldermen Carstein and Davis; Councilmen Elmore, Dinan and Hogan.

Water Supply. Aldermen Blodgett and Barry; Councilmen Monk, Nelligan and Kneeland.

Wires and Lamps. Aldermen Barry and Allen; Councilmen Dinan, Nelligan and Smithers.

STANDING COMMITTEES OF THE BOARD OF ALDERMEN.

Bonds. Aldermen Harrington, Flynn and Allen.

Claims. President Coveney, Aldermen Blodgett, Barry and Barnard.

Elections and Returns. Aldermen Harrington, Allen and Anderson.

Fire Department. Aldermen Barry, Harrington and Allen.

Health. Aldermen Anderson, Flynn and Harrington.

Highways. Aldermen Lake, Anderson and Barnard.

Licenses. Aldermen Harrington, Lake and Flynn.

Parks. Aldermen Davis, Harrington and Allen.

Police. Aldermen Davis, Lake and Flynn.

Rules and Orders. Aldermen Carstein, Barry and Allen.

Sewers. Aldermen Barnard, Davis and Lake.

Soldiers' Aid. President Coveney, Aldermen Carstein, Barnard, Flynn and Anderson.

Street Railways. Aldermen Blodgett, Allen and Davis.

JOINT SPECIAL COMMITTEES.

Matters Referred from Last City Council. Aldermen Carstein, Barry and Harrington; Councilmen O'Neil, Monk, Nelligan, Downey and Joel.

Mayor's Inaugural Address. President Coveney and Alderman Davis; Councilmen Thayer, Joel and Kneeland.

New Cambridge Bridge. Aldermen Barry and Anderson; Councilmen Elmore, Wood and Hogan.

Amendments to City Charter. President Coveney, Aldermen Carstein and Blodgett; President Stearns, Councilmen Caswell, Meyers, Reardon, Walcott and McSorley.

Rapid Transit. President Coveney, Aldermen Carstein and Blodgett; President Stearns, Councilmen Stephens, Harlow and Downey.

SPECIAL COMMITTEE OF BOARD OF ALDERMEN.

Matters Referred from Last Board of Aldermen. Aldermen Carstein, Barry and Harrington.

STANDING COMMITTEES OF THE COMMON COUNCIL.

Bills in the Second Reading. Councilmen Reardon, Joel and Cronin.
Elections and Returns. Councilmen Wood, McSorley and Kneeland.
Enrolled Ordinances. Councilmen Nelligan, Meyers and Harlow.

COMMITTEE APPOINTMENTS OF MEMBERS OF THE CITY COUNCIL.

President Coveney. Claims, Finance, Legislative Matters, Soldiers' Aid, Mayor's Inaugural Address, Amendments to City Charter, Rapid Transit.

Alderman Allen. City Home, Legislative Matters, Public Instruction, Wires and Lamps, Bonds, Elections and Returns, Fire Department (of Aldermen), Parks (of Aldermen), Street Railways, Rules and Orders.

Alderman Anderson. City Home, Health, Highways, Ordinances, Elections and Returns, Soldiers' Aid, New Bridge.

Alderman Barnard. Accounts, City Engineering Claims, Highways, Public Property, Sewers, Soldiers' Aid.

Alderman Barry. Claims, Fire Department, Legislative Matters, Printing, Water Supply, Matters from last City Council and Board, New Bridge, Wires and Lamps, Rules and Orders (of Aldermen).

Alderman Blodgett. Claims, Finance, Water Supply, Street Railways, Amendments to City Charter, Rapid Transit.

Alderman Carstein. Finance, Rules and Orders, Soldiers' Aid, Matters from last City Council and Board, Amendments to City Charter, Rapid Transit.

Alderman Davis. City Engineering, Finance, Legislative Matters, Parks, Public Instruction, Rules and Orders (Joint), Police, Sewers, Street Railways, Mayor's Inaugural Address.

Alderman Flynn. Accounts, Health, Ordinances, Bonds, Licenses, Police, Soldiers' Aid.

Alderman Harrington. Assessors, Fire Department, Parks, Printing, Public Property, Bonds, Elections and Returns, Health (of Aldermen), Licenses, Matters from last City Council and Board

Alderman Lake. Highways, Licenses, Police, Sewers.

President Stearns. Claims, Finance, Legislative Matters, Amendments to City Charter, Rapid Transit.

Councilman Caswell. Accounts, City Home, Finance, Amendments to City Charter.

Councilman Cronin. City Home, Printing, Public Instruction, Bills in the Second Reading.

Councilman Dinan. Assessors' Department, Claims, Fire Department, Rules and Orders, Wires and Lamps.

Councilman Downey. Finance, Public Property, Matters from last City Council, Rapid Transit.

Councilman Elmore. Finance, Legislative Matters, Rules and Orders, New Cambridge Bridge.

Councilman Giles. Claims, Ordinances, Parks, Public Property.

Councilman Harlow. Highways, Public Property, Rapid Transit, Enrolled Ordinances.

Councilman Hogan. City Engineering, Health, Rules and Orders, New Cambridge Bridge.

Councilman Joel. City Home, Parks, Matters from last City Council, Mayor's Inaugural Address, Bills in the Second Reading.

Councilman Kneeland. Printing, Water Supply, Mayor's Inaugural Address, Elections and Returns.

Councilman McSorley. Assessors' Department, Public Instruction, Amendments to City Charter, Elections and Returns.

Councilman Meyers. Accounts, Finance, Amendments to City Charter, Enrolled Ordinances.

Councilman Monk. City Engineering, Fire Department, Ordinances, Water Supply, Matters from last City Council.

Councilman Nelligan. Water Supply, Wires and Lamps, Matters from last City Council, Enrolled Ordinances.

Councilman O'Neil. Accounts, Claims, Highways, Matters from last City Council.

Councilman Reardon. Legislative Matters, Ordinances, Amendments to City Charter, Bills in the Second Reading.

Councilman Smithers. Health, Highways, Legislative Matters, Wires and Lamps.

Councilman Stephens. City Engineering, Highways, Legislative Matters, Printing, Rapid Transit.

Councilman Thayer. Fire Department, Health, Legislative Matters, Mayor's Inaugural Address.

Councilman Walcott. Claims, Finance, Public Instruction, Amendments to City Charter.

Councilman Wood. Claims, Parks, New Cambridge Bridge, Elections and Returns.

DEPARTMENTS AND BOARDS

EXECUTIVE DEPARTMENT.

AUGUSTINE J. DALY . . . . *Mayor.*
Edward A. Counihan . . . *Mayor's Clerk.*
Office Hours: 8 A.M. to 4 P.M.
Office, Rooms 17 and 18, City Hall. Telephone, 463.

CITY CLERK DEPARTMENT.

EDWARD J. BRANDON . . . . *City Clerk.*
Albert M. Pear . . . . *Assistant City Clerk.*
Office Hours: 8 A.M. to 4 P.M.
Office, Rooms 8 and 9, City Hall. Telephone 419.

TREASURY DEPARTMENT.

WILLIAM W. DALLINGER, *City Treasurer and Collector of Taxes.*
Office Hours: 8 A.M. to 2 P.M.
Office, Rooms 3 and 4, City Hall. Telephone 602.

AUDITING DEPARTMENT.

HARRY T. UPHAM . . . . . *City Auditor.*
Office Hours: 8 A.M. to 4 P.M.
Office, Rooms 1 and 2, City Hall. Telephone 602.

CLERK OF COMMITTEES DEPARTMENT.

JOHN MCDUFFIE . . . . . *Clerk of Committees.*
Eben W. Pike . . . . *Assistant.*
Office Hours: 8 A.M. to 4 P.M.
Office, Room 16, City Hall. Telephone 818.

CITY MESSENGER DEPARTMENT.

FRANK T. EVANS . . . . . *City Messenger.*
William E. McAnaul . . . *Assistant.*
Office Hours: 8 A.M. to 5 P.M.
Office, Room 11, City Hall. Telephone 650.

LAW DEPARTMENT.

GILBERT A. A. PEVEY . . . . *City Solicitor.*

Office Hours (at City Hall): Saturdays, 8 A.M. to 12 M.

Office, Room 17, City Hall. Telephone 463.

Boston Office, 22 Pemberton Square. Telephone 1071 Haymarket.

ENGINEERING DEPARTMENT.

JAMES W. PIERCE . . . . *City Engineer.*

Theodore L. Pike . . . *Supt. of Sewers.*

Office Hours: 8 A.M. to 5 P.M.

Office, Rooms 30 and 31, City Hall. Telephone 471.

FIRE DEPARTMENT.

THOMAS J. CASEY . . . . *Chief.*

Nathaniel W. Bunker . . . *Assistant Chief.*

Office Hours: 9 to 10 A.M.

Office, Room 23, City Hall. Telephone 650.

INSPECTION, ETC., OF BUILDINGS DEPARTMENT.

THOMAS F. TRACY, *Supt. of Public Buildings and Inspector of Buildings.*

Office Hours: 8 A.M. to 4 P.M.

Office, Room 28, City Hall. Telephone 125.

HEALTH DEPARTMENT — BOARD OF HEALTH.

JOHN J. SCOTT . . . . . *Chairman.*

Term, three years.

Goodwin I. Isenberg . . . . Term expires 1905.

John J. Scott . . . . . Term expires 1906.

†Charles T. Weeks, M. D. . . . Term expires 1907.

*Roswell Wetherbee, M. D.

James B. Soper . . . . . *Clerk.*

Edwin Farnham, M. D. . . . . *Medical Inspector.*

Office Hours: 8 A.M. to 4 P.M.

Rooms 25 and 26, City Hall. Telephone 345.

POLICE DEPARTMENT.

HENRY J. CUNNINGHAM } . . .
‡FRED B. PULLEN } . . . *Chief of Police.*

Office Hours: 8 A.M. to 6 P.M.

Office at Central Square Building. Telephone 423.

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*Retired February 1, 1904.

† Assumed office February 1, 1904.

‡ Assumed office January 19, 1904.

STREET DEPARTMENT.

*John T. Shea } . . . . . *Supt. of Streets.*
†George M. Clukas }
Henry P. Fielding . . . *Clerk.*

Office Hours: 8 A.M. to 4 P.M.
Office, Room 12, City Hall. Telephone 435.

INSPECTION OF MILK AND VINEGAR.

‡William C. Lane . . . . *Inspector of Milk.*
§Philip P. Sharples . . . . *Inspector of Vinegar.*

Office Hours: 8 to 11 A.M.
Office, Room 27, City Hall. Telephone 345.

ASSESSORS DEPARTMENT — BOARD OF ASSESSORS.

Term, three years.

Daniel B. Shaughnessy, *Secretary* . Term expires 1904.
William F. Brooks, *Chairman* . . Term expires 1905.
Jeremiah F. Donovan . . . . Term expires 1906.

Office Hours: 8 A.M. to 4 P.M.
Office, Rooms 21 and 22 City Hall. Telephone 244.

CITY ELECTRICAL DEPARTMENT.

Timothy C. O'Hearn . . . . *City Electrician.*

Office Hours: 8 A.M. to 2 P.M.
Office, Room 28, City Hall. Telephone 125.
Central Fire Alarm Office, Telephone 363.

INSPECTION OF ANIMALS DEPARTMENT.

Charles E. Hadcock, M. D. V. . . *Inspector of Animals.*
Residence, 25 Dana Street. Telephone 662-3.
(No office or hours.)

BRIDGE DEPARTMENT.

William J. Marvin, *Bridge Commissioner and Harbor Master.*
Residence, 58 Trowbridge Street. Telephone 281-2.
(No office or hours.)

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* Resigned Feb. 1, 1904.
† Assumed office, Feb. 1, 1904.
‡ Retired Feb. 3, 1904.
§ Assumed office, Feb. 3, 1904.

SEALER OF WEIGHTS AND MEASURES DEPARTMENT.

George H. Dinan . . . . . *Sealer.*
John C. Connors . . . . . *Deputy Sealer.*

Office hours: { Fridays, 8 A.M. to 4 P.M.
Saturdays, 8 A.M. to 12 P.M.

Office, Brattle Square Building. Telephone 35.

CITY PHYSICIAN.

William G. Brousseau.

Residence, 2222 Massachusetts Avenue. Telephone 1285.

Office hours, daily, 10 to 11 A.M.

Office, Central Square Building. Telephone 660.

FENCE VIEWERS.

James W. Pierce . . . . . City Hall.
Thomas F. Tracy . . . . . City Hall.

Telephones 471, 125.

SCHOOL COMMITTEE.

Augustine J. Daly, Mayor . . *Chairman, ex-officio.*

Term ending in 1904.

George W. Bicknell . . . . Ward 5
Sherman R. Lancaster . . . . Ward 7
Arthur P. Stone . . . . . Ward 10
Charles H. Thurston . . . . Ward 8
Robert Walker . . . . . Ward 1

Term ending in 1905.

Warren P. Adams . . . . Ward 8
Seth N. Gage . . . . . Ward 11
Mary E. Mitchell . . . . . Ward 6
Frank E. Wentworth . . . . Ward 3
Charles H. Williams . . . . Ward 4

Term ending in 1906.

Carolyn P. Chase . . . . . Ward 10
Edward J. Kronan . . . . Ward 2
William Taggard Piper . . . . Ward 9
J. Henry Russell . . . . Ward 5
James A. Lew . . . . Ward 7

Secretary and School Supply Agent.

SANFORD B. HUBBARD.

Superintendent of Schools.

FRANCIS COGSWELL.

Office Hours: 8.30 A.M. to 5 P.M.
Office, Rooms 13, 14 and 15, City Hall. Telephone 445.

CEMETERY DEPARTMENT — CEMETERY COMMISSIONERS.

*GEORGE S. SAUNDERS †HERBERT A. CHASE	. . .	*Chairman.*

Term, three years.

Herbert A. Chase	Term expires 1905.
*George S. Saunders	Term expires 1905.
‡Samuel Usher	Term expires 1905.
John S. Clary	Term expires 1906.
John Lynch	Term expires 1906.
Nathan C. Lombard	Term expires 1907.
Gustave Wilson	Term expires 1907.

Edward J. Brandon . . . . *Clerk of the Board.*
Office, Rooms 8 and 9, City Hall. Telephone 419.

George D. Ford . . . . . *Supt. of Cemetery.*
John J. McKenzie . . . . . *Clerk of the Cemetery.*
Office Hours: at Cemetery, 8 A.M. to 5 P.M.
Office at Cemetery on Coolidge Avenue. Telephone 289-3.

PERSON TO CAUSE TO BE PROPERLY INTERRED THE BODIES OF SOLDIERS AND SAILORS.

EBEN W. PIKE.

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* Resigned February 1, 1904.
† Elected Chairman February 3, 1904.
‡ Assumed office February 1, 1904.

PUBLIC LIBRARY DEPARTMENT — TRUSTEES OF CAMBRIDGE PUBLIC LIBRARY.

EUGENE A. McCARTHY . . . *President.*

For one year.

William Taggard Piper of School Committee.

Citizens at large. Term, three years.

Albert M. Barnes	Term expires 1905.
Eugene A. McCarthy	Term expires 1905.
John Buckley	Term expires 1906.
J. Henry Duckrey	Term expires 1906.
George F. McKelleget	Term expires 1907.
Edward C. Wheeler	Term expires 1907.

Edward C. Wheeler	*Secretary.*
Willam Taggard Piper	*Treasurer.*
Clarence W. Ayer	*Librarian.*

Library Opens: 10 A.M. to 8 P.M.
Reading Room: 10 A.M. to 10 P.M.
Sunday, 2 to 10 P.M.

Office at Library Building, Broadway, Irving and Trowbridge Streets.
Telephone 610.

WATER WORKS DEPARTMENT — CAMBRIDGE WATER BOARD.

WILLIAM B. DURANT . . . . *President.*

Term, five years.

Edmund H. Stevens	Term expires 1904.
George H. Howard	Term expires 1905.
William B. Durant	Term expires 1906.
Andrew J. Rady	Term expires 1907.
John F. O'Brien	Term expires 1908.

Walter H. Harding	*Clerk of the Board.*
Edwin C. Brooks	*Supt. of Water Works.*
Walter H. Harding	*Water Registrar.*

Office Hours: 8 A.M to 4 P.M.
Office, Rooms 5 and 6, City Hall. Telephone 430.

REGISTRARS OF VOTERS.

J. Frank Facey . . . . . *Chairman.*

Term, four years.

Isaac S. Pear	Term expires 1905.
J. Frank Facey	Term expires 1906.
Peter P. Bleiler	Term expires 1907.
John P. McCormick	Term expires 1908.

Isaac S. Pear . . . . . *Clerk.*

Office at Central Square Building. Telephone 1027-3.

PARK DEPARTMENT — PARK COMMISSIONERS.

Andrew J. Conlin . . . . . *President.*

Term, three years.

Andrew J. Conlin	Term expires 1905.
John E. Dwyer	Term expires 1906.
George Howland Cox	Term expires 1907.

Grace E. Hixon . . . . . *Clerk of the Board.*

James A. Montgomery . . . . . *General Superintendent.*

Office Hours: 8 A.M. to 4 P.M.

Office, Room 10, City Hall. Telephone 650.

SINKING FUND DEPARTMENT — COMMISSIONERS OF THE SINKING FUNDS.

Frank A. Allen . . . . . *Chairman.*

Term, three years.

Frank A. Allen	Term expires 1904.
Thomas F. Royle	Term expires 1904.
John C. Bullard	Term expires 1905.
George H. Howard	Term expires 1905.
Austin Ford	Term expires 1906.
George G. Wright	Term expires 1906.

John McDuffie . . . . . *Secretary.*

William W. Dallinger . . . . . *Treasurer.*

OVERSEERS OF THE POOR DEPARTMENT — OVERSEERS OF THE POOR.

Patrick Crowley	*Chairman.*
Term, five years.	
Francis X. Masse	Term expires 1905.
Henry H. Winslow	Term expires 1906.
John R. Fairbairn	Term expires 1907.
James F. Mullen	Term expires 1908.
Patrick Crowley	Term expires 1909.
David P. Muzzey	*Secretary.*
Charles E. Goodrow	*Supt. of City Home.*

Office Hours (at Central Square Building): 8 A.M. to 4 P.M.

Telephones { Office, 660. / City Home, 189.

BOARD OF SURVEY.

William E. Doyle	*Chairman.*
Term, three years.	
William E. Doyle	Term expires 1905.
John T. Scully	Term expires 1906.
James A. Wood	Term expires 1907.
John McDuffie	*Secretary.*

TRUSTEES OF THE DOWSE INSTITUTE.

Frank A. Allen	*President.*
Augustine J. Daly	*Mayor, ex-officio.*
Harry N. Stearns,	*President of Common Council, ex-officio.*
George Howland Cox	Willard A. Bullard.
	Frank A. Allen.
George Howland Cox	*Secretary.*

TRUSTEES OF THE { SANDERS TEMPERANCE FUND. / BRIDGE CHARITABLE FUND.

Augustine J. Daly, Mayor, John W. Coveney, President of Board of Aldermen, Harry N. Stearns, President of Common Council,

Ex-officiis.

ROSTER OF THE POLICE FORCE.

Chief of Police.

FREDERICK B. PULLEN.

Deputy Chief.

WILLIAM F. BATCHELDER.

Clerk.

EDWARD J. COMERFORD.

Captains of Police.

DISTRICT I.	DISTRICT II.	DISTRICT III.
JOHN F. MURRAY.	JAMES E. MURRAY.	JOHN J. McBRIDE.

Chief Inspector.

Capt. PATRICK J. HURLEY.

Assistant Inspector.

Lieut. JAMES M. KEANEY.

Sergeants of Police.

DISTRICT I.	DISTRICT II.	DISTRICT III.
CALLAHAN, DANIEL	ALEXANDER, JAMES S.	PIKE, CHARLES L.
CONRY, MICHAEL J.	STEVENS, DAVID A.	MULLETT, WILLIAM

Officers on Special Duty.

DEEHAN, JOHN W. } At Chief's Office,
HALL, JAMES P. }

COULTER, JOHN, City Hall. FURBUSH, JOSEPH H., Public Library.

Patrolmen.

DISTRICT I.

No. of Badge		Hat No.	No. of Badge		Hat No.
60	Aberle, Charles F.	143	36	Dunlea, Patrick F.	102
98	Aberle, William H.	142	74	Forristall, James B.	129
7	Barrington, George T.	107	8	Furbush, Joseph H.	108
53	Blen, Elbridge S.	150	95	Hill, William H.	114
169	Brennan, Michael J.	131	47	Hixon, Robert T.	104
102	Canney, John J.	116	58	Holt, James H. H.	111
34	Conry, Michael J.	109	11	Horrigan, Edward F.	115
20	Corcoran, Timothy	120	17	Jewett, Dexter	117
40	Doyle, Patrick	112	103	Kelley, Michael J.	138

No. of Badge		Hat No.
35	Ladd, Fred L.	135
67	Leahy, Dennis F.	105
91	Leahy, Timothy F.	139
44	Marston, Charles C.	130
88	Mahoney, George J.	148
55	Maloy, John P.	126
16	McCabe, Edward J.	145
27	McCann, Charles J.	141
1	McCrehan, John E.	101
96	McFadden, Richard M.	146
18	McNulty, James E.	118
76	Mullins, William N.	128
45	Murray, Patrick F.	133
89	Parks, Joseph W.	124
62	Roper, Bernard J.	134
21	Smyth, George	121
57	Walsh, David H.	144
92	Walsh, David L.	149
80	Welch, Edward J.	102
3	White, Orrin B.	103
79	Wyman, Charles W.	137

DISTRICT II.

No. of Badge		Hat No.
101	Blanchard, Ernest E.	207
22	Campbell, Thomas M.	222
56	Coulter, John	203
68	Deehan, John W.	213
94	Diehl, Anton B.	223
50	Dynan, Thomas F.	236
86	Ellis, Frederick M.	232
38	Ginty, Michael A.	209
81	Gordon, Herbert	211
2	Graves, William H.	202
41	Griffiths, John J.	225
82	Hackett, Mertie M.	208
77	Hezlitt, John A.	228
14	Higgins, Benjamin F.	214
33	Howe, William H. H.	233
29	LaMarche, Frank D.	237
72	McCaffrey, Bernard	215
43	Mullen, Robert E.	210
21	Neilon, John P.	219
4	Neilon, Michael	204
52	Priest, Charles W.	240
59	Real, Thomas J.	229
83	Rice, Ralph R.	216
6	Roberts, John W.	235
31	Robertson, William H.	231
70	Robinson, Frederick A.	217
73	Rowe, Thomas P.	220
78	Rowe, William H.	201
61	Sullivan, Cornelius	227
24	Temple, Joseph C.	205
42	Wells, John H.	224

DISTRICT III.

No. of Badge		Hat No.
54	Bradley, Charles E.	320
13	Coady, Thomas F.	324
71	Counihan, Daniel F.	312
66	Cox, James A.	303
5	Davis, Harry W.	319
36	Dunlea, Patrick F.	316
9	Hall, James P.	309
87	Kelleher, John	322
23	Law, Frederick W.	323
30	McCarthy, Jeremiah	314
39	McCorry, Joseph F.	304
15	McKeown, William F.	306
75	Mulvaney, Simon J.	318
84	Presho, Charles H.	325
46	Scobey, Frank W.	301
19	Scully, Benjamin C.	307
63	Skelley, John W.	308
48	Winslow, John E.	315

Reserve Officers.

No. of Badge		Hat No.	No. of Badge		Hat No.
5	Crane, Timothy	319	18	Ginty, William B.	234
13	Kelley, Patrick D.	324	24	Sheehan, John J.	321
114	McCarthy, J. P.	140	8	Sheehan, Cornelius	122
49	Shea, Thomas	106	10	Largenton, A. C.	317
17	McArthur, Frank	127	28	Culhane, Robert G.	226

Drivers of Patrol Wagons.

DISTRICT II.	DISTRICT III.
Cook, John T.	Coffey, John.
Sullivan, Dennis J..	Sullivan, John.

Ambulance Drivers.

Dow, Warren H. Sherman, George E.

Matrons.

Doyle, Elizabeth. Mary McEachern.

Officers Retired on Pension.

Cloyes, Lothrop J.	Folsom, Mark J.
Apel, Frederick.	Belcher, Edward F.
Jones, Henry C.	Shaughnessy, John E.

Person to receive Information of Damages by Dogs.

(Ch. 454, Acts 1889.)
Frederick B. Pullen.

TRUANT OFFICERS.

Lucian S. Cabot.	William H. Porter.
John Carmichael.	Thomas F. Riley.

CONSTABLES.

(Without power to serve civil process.)

Fred Bailey.	John P. Conroy.
Joseph F. Boyle.	John J. Creedon.
Thomas F. Burke.	George H. Dinan.
Lucian S. Cabot.	Joseph J. Donahue.
John C. Connors.	John J. Foley.
John Carmichael.	Charles E. Goodrow.

Frank A. Hagar.
Joseph James.
John A. Jackson.
Charles A. Lincoln.
Francis A. McLaughlin.
Thomas H. McManus.
Daniel J. Mills.
Peter J. Murphy.
David J. Nelligan.
George A. Patten.
William H. Porter.
Thomas F. Riley.
John J. Roach.
Leander Sampson.
John Taylor.
Frank H. Wait.
Joseph B. Whoriskey.

CONSTABLES.

(With power to serve civil process.)

Edward W. Abbott.
Edward Brady.
James A. Brown.
Timothy J. Curtin.
John Foster.
Joseph Fox.
Joseph N. Gilman.
Edward Grant.
Warren Ivers.
James E. Lennon.
John T. Lynch.
Charles F. Manning.
Denis J. Moynahan.
John J. O'Brien.
John H. Royster.
Frank E. Shaw.
Arthur M. Stewart.

UNDERTAKERS.

Forest M. Blake.
Joseph P. Calnan.
David F. Corcoran.
Jeremiah Corkery.
John W. Coveney.
Daniel P. Danehy.
Edwin L. Derby.
John J. Dunn.
George E. Everett.
David Fudge.
Edward J. Fudge.
George H. Kelley.
Allen J. Litchfield.
Horace D. Litchfield.
Judson Litchfield.
C. Henry Lockhart.
Abiel E. Long.
George W. Long.
James F. Mullen.
John J. Murphy.
William N. Neally.
David J. Nelligan.
Peter J. Nelligan.
T. Louis O'Brien.
John O'Connell.
J. H. Ricker.
John J. Ross.
Daniel P. Shea.
James J. Shea.
Michael J. Shea.
John W. Skelley, Jr.
Ralph Smith.
William Stinson.
William A. Taylor.
Charles W. Tukey, 3rd.
Benjamin F. Wyeth.
Henry A. Wyeth.

AUCTIONEERS.

John J. Ahern.
Wilbur S. Clarke.
John W. Coveney.
Patrick Crowley.
Henry J. Cunningham.
Watson G. Cutter.
Jeremiah F. Donovan.
William L. Frankenstein.
Arthur H. Frost.
Leander M. Hannum.
Stephen H. Harrington.
Charles Houlder.
Frank L. Howe.
William Kelly.
William F. Ware.
Samuel R. Knights.
Frank H. Lambert.
Louis Lemon.
James E. Lennon.
John T. Lynch.
John W. Mahady.
Henry L. Marcy.
Cornelius J. McArthur.
John B. McKenna.
William T. Phelan.
Charles L. Phillips.
Walter H. Quinn.
Solomon A. Rich.
George H. Rodgers.
Thomas C. Scottron.
Frank E. Shaw.
Thomas W. Spencer.
Rolla E. Stockton.
Francis Traynor.
Walter C. Wardwell.

FIELD DRIVERS.

Charles F. Aberle.
William H. Aberle.
Richard H. Aylward.
George T. Barrington.
Ernest E. Blanchard.
Elbridge S. Blen.
Charles E. Bradley.
Michael J. Brennan.
Thomas F. Burke.
Thomas M. Campbell.
John J. Canney.
Thomas F. Coady.
John P. Conroy.
Timothy Corcoran.
James A. Cox.
John Coulter.
Edward J. Comerford.
Daniel F. Counihan.
Timothy Crane.
Robert G. Culhane.
Harry W. Davis.
Antone B. Deihl.
John W. Deehan.
Joseph J. Donahue.
Patrick Doyle.
Patrick F. Dunlea.
Thomas F. Dynan.
Frederick M. Ellis.
James B. Forristall.
Joseph H. Furbush.
Michael A. Ginty.
William B. Ginty.
Herbert Gordon.
William H. Graves.
John J. Griffiths.
Mortimer M. Hackett.

James P. Hall.
John A. Hezlitt.
Benjamin F. Higgins.
William H. Hill.
Robert T. Hixon.
James H. H. Holt.
Edward F. Horrigan.
William H. H. Howe.
Patrick F. Hurley.
Dexter Jewett.
James M. Keaney.
John Kelleher.
Michael J. Kelley.
Fred L. Ladd.
Frank D. La Marche.
Augustus J. Largenton.
Frederick W. Law.
Dennis F. Leahy.
Timothy F. Leahy.
George J. Mahoney.
Charles C. Marston.
John P. Maloy.
Frank McArthur.
Edward J. McCabe.
Bernard McCaffrey.
Joseph F. McCorry.
Jeremiah McCarthy.
Jeremiah P. McCarthy.
John E. McCrehan.
Charles J. McCann.
James L. McElroy.
Richard M. McFadden.
William F. McKeown.
Francis A. McLaughlin.
William H. McMennimen.
James E. McNulty.
Robert E. Mullen.
William N. Mullins.
Simon J. Mulvaney.
Peter J. Murphy.
Patrick F. Murray.
John P. Neilon.
Michael Neilon.
Joseph W. Parks.
George A. Patten.
Charles H. Presho.
Charles W. Priest.
Thomas J. Real.
Ralph R. Rice.
Bernard J. Roper.
Frederick A. Robinson.
William H. Robertson.
John W. Roberts.
Thomas P. Rowe.
William H. Rowe.
Frank W. Scobey.
Benjamin C. Scully.
John E. Shaughnessy.
Thomas Shea.
John J. Sheehan.
Cornelius Sheehan.
John W. Skelley.
George Smyth.
Cornelius Sullivan.
Joseph C. Temple.
David H. Walsh.
David L. Walsh.
Edward J. Welch.
John H. Wells.
Orrin B. White.
John E. Winslow.
Charles W. Wyman.

MEASURERS OF WOOD AND BARK.

Orville R. Cooper.
Herbert T. Lawrence.
Robert A. Parry.
David C. Proudfoot.
Joseph P. Quilty.
Sewall R. Seaverns.
Charles B. Wendell.

POUND KEEPER.

Robert Holden.

COMMITTEE FOR THE PRESERVATION OF FISH.

Edwin C. Brooks.
Theodore L. Pike.

WEIGHERS OF COAL.

Abraham A. Barber.
William Barber.
Clarence G. Bartlett.
James Bavin.
Preston L. Berry.
John F. Blevins.
George L. Bragan.
Andrew S. Brewer.
J. Hennessey Brine.
Martha Brown.
Silas E. Buck.
John E. Burgess.
Albert D. Burns.
Eugene A. F. Burtnett.
Hans L. Carstein.
Augustine W. Clark.
Charles N. Clark.
James W. Coleman.
Walter G. Coleman.
Nelson B. Coll.
Jacintho S. Condinho.
Orville R. Cooper.
Warren Crane.
Effie I. Crook.
Arthur R. Crooks.
David Crowley.
Frank Davis.
William E. Dodge.
John T. Downey.
William H. Durgin.
Cole Eliot.
William R. Everett.
Levi Fairbanks.
William Farrell.
Robert Fawcett.
George B. Fitzgerald.
Richard E. Fitzgerald.
George W. Frost.
Albert Gertson.
Victor Gertson.
Fred W. Goldsmith.
Oro Grossman.
John J. Guiney.
Nellie F. Hanlon.
Timothy F. Hanlon.
Lillian M. Harper.
Robert C. Harris.
Mortimer F. Hartley.
John T. Hayes.
Harry B. S. Hinds.
Michael J. Hopkins.
Stanley Jennison.
Thomas H. Johnson.
William H. Johnson.
Jeremiah Kennedy.
Armon A. Kiner.
Frederick A. Kreeb.
Charles F. Long.
Frank C. Lovell.
James Malley.
Patrick Manning.
Stanwood C. Mariner.
Harry W. Marston.
Sarkis Martin.
John McAllister.
James McDonald.
Daniel McCarthy.
Harry M. Montague.

John Moynahan.
John F. Mulcahey.
Daniel J. Murphy.
Walter H. Nay.
Daniel E. O'Brien.
James O'Brien.
Charles L. Parker.
Charles H. Paschal.
Charles Pierce.
Stephen A. Prohaska.
David Proudfoot.
David C. Proudfoot.
Edward P. Pullen.
Robert J. Purcell.
Frank W. Reed.
William H. Reed.
George Richardson.
James E. Rogers.
Samuel F. Rowe.
Alexander Russell.
Daniel J. Sawyer.
Helena M. Schliephake.
John T. Scully, Jr.
Sewall R. Seaverns.
Alonzo Shedd.
Edward A. Smith.
Frank B. Smith.
Charles W. Sulivan.
James O. Taylor.
Frank P. Towle.
John T. Ward.
Thomas H. Warren.
William Watkins.
Charles B. Wendell.
Patrick J. White.
Charles H. Wigmore.
Samuel Winningham.
Edward B. Wood.

INSPECTORS OF JUNK SHOPS, PAWNBROKERS' SHOPS AND SECOND-HAND STORES AND DEALERS.

Patrick J. Hurley.
John J. McBride.
James E. Murray.
John F. Murray.
Frederick B. Pullen.

HAY WEIGHER.

William N. Neally.

PUBLIC WEIGHERS.

Robert C. Bird.
Joseph F. Boyle.
Ernest E. Bradbury.
William C. Coxon.
Edward B. Dale.
William D. Donovan.
John E. Fay.
James A. Ferguson.
Alexander S. Ford.
John P. Healy.
Robert Holden.
James Knowles.
Neil Macdonald.
Fred W. MacFarland.
Melvin MacFarland.
William Maloney.
John F. Reilly.
John M. Thayer.
James A. Whelan.

INSPECTOR OF PRESSED OR BUNDLED HAY OR STRAW.

Harvey O. Titus.

MEASURERS OF GRAIN.

John C. Connors.
George H. Dinan.

PERSONS

To seize all baskets, measures or vessels used or intended to be used in measuring charcoal, as provided in Sect. 93, Chap. 57, R. L.

John C. Connors.
George H. Dinan.

MEASURER AND SURVEYOR.

Henry L. Hale.

SURVEYOR OF MECHANICS' WORK.

Charles A. Mason.

STATE AND CITY ELECTIONS

HELD

NOVEMBER 3, 1903, DECEMBER 15, 1903

RESPECTIVELY

As Corrected by Recounts.

VOTES CAST FOR GOVERNOR AND OTHER STATE OFFICERS, COUNCILLOR, SENATORS, COUNTY COMMISSIONER, REGISTER OF PROBATE, REGISTER OF DEEDS, COUNTY TREASURER, QUESTION OF ACCEPTING ACT, CHAPTER 454, ACTS OF 1903, AND REPRESENTATIVES IN THE GENERAL COURT, FOR CITY OFFICERS, AND ON THE LICENSE QUESTION.

STATE ELECTION, NOVEMBER 3, 1903.

CANDIDATES FOR

Names of Candidates.	Governor.								Lieut. Governor.						Secretary.				Treasurer.					
	Whole Number.	Bates.	Brennan.	Chase.	Cobb.	Gaston.	Eugene S. Taylor.	Blank.	Adams.	Guild.	Merrill.	Olney.	Ruther.	Blank.	Bokelund.	Coyle.	Cutting.	Ezekiel.	Olin.	Blank.	Billings.	Bradford.	Johnson.	Nagler.	Thacher.	Blank.
Ward 1, Precinct 1	434	41	6	18	2	350		17	29	38	2	323	5	37	26	5	2	312	47	42	26	38	1	8	320	41
Ward 1, Precinct 2	365	69	2	31	...	256		7	30	69	2	238	8	18	27	5	2	226	69	36	28	63	3	5	217	49
Ward 1, Totals....	799	110	8	49	2	606		24	59	107	4	561	13	55	53	10	4	538	116	78	54	101	4	13	537	90
Ward 2, Precinct 1	447	66	14	34	1	324		8	38	62	4	294	17	32	31	18	3	279	61	55	35	59	1	14	286	52
Ward 2, Precinct 2	363	55	5	24	1	266		12	33	41	5	247	7	30	31	8	5	222	55	42	30	46	1	11	234	41
Ward 2, Totals....	810	121	19	58	2	590		20	71	103	9	541	24	62	62	26	8	501	116	97	65	105	2	25	520	93
Ward 3, Precinct 1	558	56	6	29	1	452		14	34	46	5	408	8	57	31	9	3	391	44	80	31	40	2	10	387	88
Ward 3, Precinct 2	413	57	4	21	...	317		14	23	55	3	288	1	43	18	4	1	267	55	68	20	52	1	2	271	67
Ward 3, Precinct 3	427	103	2	30	...	281		11	41	92	....	270	3	21	33	4	1	258	94	37	34	90	....	3	261	39
Ward 3, Totals....	1,398	216	12	80	1	1,050		39	98	193	8	966	12	121	82	17	5	916	193	185	85	182	3	15	919	194
Ward 4, Precinct 1	426	108	5	22	...	275		16	25	112	1	237	3	48	24	5	1	218	112	66	21	102	2	2	226	73
Ward 4, Precinct 2	396	191	1	32	4	165		3	36	179	8	144	2	27	32	4	7	133	184	36	31	178	8	4	129	46
Ward 4, Precinct 3	457	250	2	27	5	164		9	36	238	5	155	1	22	30	6	9	136	236	40	30	241	5	5	141	35
Ward 4, Totals....	1,279	549	8	81	9	604		28	97	529	14	536	6	97	86	15	17	487	532	142	82	521	15	11	496	154

Ward 5, Precinct 1	499	195	4	19	1	272		8	23	193	3	249	3	28	18	8	1	232	182	58	20	174	2	2	236	65
Ward 5, Precinct 2	456	270	1	10	2	160		13	18	260	5	161	2	10	9	2	9	141	269	26	17	259	6	1	145	28
Ward 5, Precinct 3	419	299	2	8	4	101		5	15	292	11	88	1	12	8	1	7	70	312	21	9	308	6	3	76	17
Ward 5, Totals....	1,374	764	7	37	7	533		26	56	745	19	498	6	50	35	11	17	443	763	105	46	741	14	6	457	110
Ward 6, Precinct 1	442	225	3	37	3	156		18	42	216	4	142	12	26	32	4	5	129	223	49	37	205	4	5	132	59
Ward 6, Precinct 2	471	222	5	18	1	220		5	25	216	1	200	6	23	20	8	3	190	212	38	20	210	2	4	197	38
Ward 6, Precinct 3	503	355	3	19	3	117		6	22	347	5	106	5	18	17	10	8	94	343	31	20	336	4	6	93	44
Ward 6, Totals....	1,416	802	11	74	7	493		29	89	779	10	448	23	67	69	22	16	413	778	118	77	751	10	15	422	141
Ward 7, Precinct 1	483	363	....	18	5	94		3	21	363	6	80	1	12	17	3	13	67	356	27	20	352	5	1	74	31
Ward 7, Precinct 2	520	222	1	14	5	269		9	20	210	3	256	14	17	16	1	6	238	219	40	20	208	3	.....	247	42
Ward 7, Precinct 3	470	274	6	19	6	156		9	27	265	13	140	11	14	20	10	15	131	261	33	23	257	13	8	131	38
Ward 7, Totals....	1,473	859	7	51	16	519		21	68	838	22	476	26	43	53	14	34	436	836	100	63	817	21	9	452	111
Ward 8, Precinct 1	401	226	1	6	1	160		7	10	213	1	157	1	19	10	2	1	136	228	24	9	215	1	1	144	31
Ward 8, Precinct 2	436	257	1	7	3	159		9	15	254	5	140	1	21	10	2	4	131	256	33	10	249	4	4	130	39
Ward 8, Precinct 3	453	106	1	14	1	320		11	17	109	1	301	1	24	15	6	3	29	101	37	16	98	....	4	293	42
Ward 8, Totals....	1,290	589	3	27	5	639		27	42	576	7	598	3	64	35	10	8	558	585	94	35	562	5	9	567	112
Ward 9, Precinct 1	605	373	1	8	1	211		11	12	375	7	187	....	24	4	8	11	149	402	31	6	406	6	36	122	29
Ward 9, Precinct 2	600	252	4	18	2	307		17	23	245	33	265	4	30	20	6	5	252	273	44	22	259	2	2	271	44
Ward 9, Totals....	1,205	625	5	26	3	518		28	35	620	40	452	4	54	24	14	16	401	675	75	28	665	8	38	393	73
Ward 10, Precinct 1	432	324	....	6	1	98		3	10	322	2	94	1	3	5	2	5	71	333	16	5	329	2	.....	77	19
Ward 10, Precinct 2	552	225	6	12	1	303		5	19	218	3	286	8	18	16	6	3	266	223	38	17	219	2	8	264	42
Ward 10, Totals....	984	549	6	18	2	401		8	29	540	5	380	9	21	21	8	8	337	556	54	22	548	4	8	341	61
Ward 11, Precinct 1	651	355	1	21	2	261	1	10	25	344	3	248	3	28	21	3	4	213	365	45	19	346	3	1	227	55
Ward 11, Precinct 2	622	143	5	23	3	432		16	25	136	2	401	14	44	24	11	5	377	137	68	21	133	2	10	386	70
Ward 11, Totals....	1,273	498	6	44	5	693	1	26	50	480	5	649	17	72	45	14	9	590	502	113	40	479	5	11	613	125
Grand Totals.....	13,301	5,682	92	545	59	6,646	1	276	694	5,510	143	6,105	143	706	565	161	142	5,620	5,652	1,161	597	5,472	91	160	5,717	1,264

CANDIDATES FOR

Names of Candidates	Auditor.							Attorney General.						Councillor.				Senator 2nd Suffolk.					2nd Middlesex.					
	Whole Number.	Hagan.	Orr.	Steele.	Tetrault.	Turner.	Blank.	Anderson.	Carroll.	Dean.	Flaherty.	Parker.	Blank.	Hoag.	Mulholland.	Sanderson.	Blank.	Whole Number.	Galvin.	Noble.	Sullivan.	Blank.	Whole Number.	Montgomery.	Rounds.	Thorne.	Grenville S. MacFarland	Blank.
Wd. 1, Pre. 1	434	14	25	1	303	42	49	12	21	6	313	38	44	38	32	307	57	434	46	44	307	37						
Wd. 1, Pre. 2	365	12	23	5	212	64	49	5	21	....	225	68	46	60	28	219	58	365	46	64	211	44						
Wd. 1, Totals	799	26	48	6	515	106	98	17	42	6	538	106	90	98	60	526	115	799	92	108	518	81						
Wd. 2, Pre. 1	447	23	29	3	270	58	64	14	33	2	284	62	52	52	37	289	69	447	53	63	271	60						
Wd. 2, Pre. 2	363	14	27	2	218	48	54	11	28	3	228	54	39	49	32	229	53	363	53	45	223	42						
Wd. 2, Totals	810	37	56	5	488	106	118	25	61	5	512	116	91	101	69	518	122	810	106	108	494	102						
Wd. 3, Pre. 1	558	13	28	8	368	41	100	13	27	4	384	40	90	35	37	363	123											
Wd. 3, Pre. 2	413	10	15	2	251	60	75	4	19	1	265	55	69	49	23	262	79						558	426	70	25		37
Wd. 3, Pre. 3	427	15	25	2	240	87	58	11	26	1	261	84	44	83	35	250	59						413	301	73	15		24
Wd. 3, Totals	1,398	38	68	12	859	188	233	28	72	6	910	179	203	167	95	875	261						427	271	105	35		16
Wd. 4, Pre. 1	426	6	24	2	204	100	90	6	23	4	216	92	85	94	26	214	92						1,398	998	248	75		77
Wd. 4, Pre. 2	396	10	26	7	128	178	47	7	27	11	135	171	45	165	31	136	64						426	234	125	25		42
Wd. 4, Pre. 3	457	6	27	6	137	240	41	2	29	6	137	240	43	232	27	144	54						396	153	196	31		16
Wd. 4, Totals	1,279	22	77	15	469	518	178	15	79	21	488	503	173	491	84	494	210						457	157	257	22		21
Wd. 5, Pre. 1	499	8	18	1	223	173	76	6	20	2	235	173	63	171	21	233	74						1,279	544	578	78		79
Wd. 5, Pre. 2	456	3	10	9	135	268	31	4	12	10	180	226	24	261	11	142	42						499	264	197	19		19
Wd. 5, Pre. 3	419	3	6	5	73	308	24	3	6	8	67	317	18	302	9	79	29						456	159	274	11		12
Wd. 5, Totals	1,374	14	34	15	431	749	131	13	38	20	482	716	105	734	41	454	145						419	71	322	13		13
																							1,374	494	793	43		44

Wd. 6, Pre. 1	442	8	32	6	129	207	60	11	32	3	129	208	59	198	39	136	69						442	139	243	29		31
Wd. 6, Pre. 2	471	8	15	7	186	207	48	7	15	5	186	208	50	210	20	181	60						471	183	244	19		25
Wd. 6, Pre. 3	503	8	19	14	85	332	45	6	20	9	88	344	36	332	21	100	50						503	93	369	19		22
Wd. 6, Totals	1,416	24	66	27	400	746	153	24	67	17	403	760	145	740	80	417	179						1,416	415	856	67		78
Wd. 7, Pre. 1	483	6	16	7	65	363	26	6	13	5	69	360	30	352	14	75	42						483	62	385	13		23
Wd. 7, Pre. 2	520	7	14	5	234	208	52	6	15	4	249	202	44	203	19	246	52						520	237	244	14		25
Wd. 7, Pre. 3	470	9	21	10	129	262	39	9	17	13	129	262	40	263	22	139	46						470	134	296	19		21
Wd. 7, Totals	1,473	22	51	22	428	833	117	21	45	22	447	824	114	818	55	460	140						1,473	433	925	46		69
Wd. 8, Pre. 1	401	2	7	5	131	221	35	4	7	2	130	227	31	214	9	137	41						401	139	234	10		18
Wd 8, Pre 2	436	4	12	2	120	257	41	4	13	3	127	253	36	250	10	134	42						436	122	275	10		29
Wd. 8, Pre. 3	453	10	14	2	280	96	51	4	16	....	293	104	36	95	18	289	51						453	317	111	14		11
Wd. 8, Totals	1,290	16	33	9	531	574	127	12	36	5	550	584	103	559	37	560	134						1,290	578	620	34		58
Wd. 9, Pre. 1	605	3	7	10	128	412	45	4	7	11	127	422	34	385	10	144	66						605	142	427	7		29
Wd. 9, Pre. 2	600	7	18	5	254	259	57	4	18	6	255	265	52	240	23	267	70						600	279	268	20		33
Wd. 9, Totals	1,205	10	25	15	382	671	102	8	25	17	382	687	86	625	33	411	136						1,205	421	695	27		62
Wd. 10, Pre. 1	432	....	9	6	69	330	18	2	7	1	76	335	17	316	8	82	26						432	74	335	9		14
Wd. 10, Pre. 2	552	14	10	4	268	212	44	8	12	3	267	220	42	204	20	279	49						552	282	234	17		19
Wd. 10, Totals	984	14	19	10	337	542	62	10	19	4	337	555	59	520	28	361	75						984	356	569	26		33
Wd. 11, Pre. 1	651	4	16	3	216	357	55	4	17	9	221	350	50	341	27	217	66						651	238	365	20	1	27
Wd. 11, Pre. 2	622	12	19	4	380	133	74	13	22	2	385	130	70	132	13	385	82						622	398	162	24		38
Wd. 11, Totals	1,273	16	35	7	596	490	129	17	39	11	606	480	120	473	50	602	148						1,273	636	527	44	1	65
Grand Totals	3,301	239	512	143	5,436	5,523	1,448	150	523	134	5,655	5,510	1,289	5,326	632	5,678	1,665	1,609	198	216	1,012	183	11,692	4,875	5,811	440	1	565

CANDIDATES FOR REPRESENTATIVES IN GENERAL COURT.

Names of Candidates.	3rd Middlesex.					2nd Middlesex.							4th Middlesex.									1st Middlesex.					5th Middlesex.			
	Whole Number.	Lehan.	McDonald.	John H. Hurley.	Blank.	Whole Number.	Aylward.	Hancock.	Malley.	Morrison.	Scott.	Sennott.	Blank.	Whole Number.	Abbott.	Clark.	Cooney.	Ducharme.	Googins.	Kendall.	McArthur.	Blank.	Whole Number.	Nickerson.	Peabody.	Thorndike Spalding.	Blank.	Whole Number.	Deitrick.	Dudley.	Blank.
Ward 1, Prec. 1	434	296	73		65																									
Ward 1, Prec. 2	365	210	84		71																									
Ward 1, Totals.	799	506	157		136																									
Ward 2, Prec. 1	447	247	105		95																									
Ward 2, Prec. 2	363	203	100	1	59																									
Ward 2, Totals.	810	450	205	1	154																									
Ward 3, Prec. 1						558	391	19	133	32	20	383	138																	
Ward 3, Prec. 2						413	269	16	99	43	20	282	97																	
Ward 3, Prec. 3						427	263	35	106	83	31	252	84																	
Ward 3, Totals.						1,398	923	70	338	158	71	917	319																	
Ward 4, Prec. 1						426	235	13	85	137	16	212	154																	
Ward 4, Prec. 2						396	153	28	160	194	27	120	110																	
Ward 4, Prec. 3						457	154	27	218	223	23	133	136																	
Ward 4, Totals.						1,279	542	68	463	554	66	465	400																	
Ward 5, Prec. 1						499	264	20	186	166	18	233	111																	
Ward 5, Prec. 2						456	167	13	256	243	10	132	91																	
Ward 5, Prec. 3						419	88	12	278	290	12	59	99																	
Ward 5, Totals.						1,374	519	45	720	699	40	424	301																	

Ward 6, Prec. 1														442	126	221	32	28	215	21	116	125													
Ward 6, Prec. 2														471	179	224	16	14	200	27	146	136													
Ward 6, Prec. 3														503	92	335	18	11	320	52	84	94													
Ward 6, Totals.														1,416	397	780	66	53	735	100	346	355													
Ward 7, Prec. 1														483	61	356	10	9	348	34	52	96													
Ward 7, Prec. 2														520	188	228	26	22	225	20	185	146													
Ward 7, Prec. 3														470	107	258	24	24	255	29	129	114													
Ward 7, Totals.														1,473	356	842	60	55	828	83	366	356													
Ward 8, Prec. 1																							401	141	242	2	16								
Ward 8, Prec. 2																							436	117	293	...	26								
Ward 8, Prec. 3																							453	314	113	...	26								
Ward 8, Totals.																							1,290	572	648	2	68								
Ward 9, Prec. 1																							605	141	446	...	18								
Ward 9, Prec. 2																							600	302	274	1	23								
Ward 9, Totals.																							1,205	443	720	1	41								
Ward 10, Prec. 1																												432	109	317	6				
Ward 10, Prec. 2																												552	324	212	16				
Ward 10, Totals																												984	433	529	22				
Ward 11, Prec. 1																												651	322	309	20				
Ward 11, Prec. 2																												622	478	118	26				
Ward 11, Totals																												1,273	800	427	46				
Grand Totals...	1,609	956	362	1	290	4,051	1,984	183	1,521	1,411	177	1,806	1,020	2,889	753	1,622	126	108	1,563	183	712	711	2,495	1,015	1,368	3	109	2,257	1,233	956	68				

CANDIDATES FOR

Names of Candidates.	County Commissioner.					Register of Probate.				Register of Deeds.				County Treasurer.				Question of Accepting Act, Ch. 454, A. D. 1903.		
	Whole Number.	Duren.	Upham.	Ussher.	Blank.	Bernier.	Folsom.	Simonds.	Blank.	Childs.	Drury.	Blank.	James D. Hill	Authier.	Claus.	Hayden.	Blank.	Yes.	No.	Blank.
Ward 1, Precinct 1	434	307	41	35	51	33	42	305	54	88	120	226		313	27	43	51	77	175	182
Ward 1, Precinct 2	365	206	69	34	56	31	67	213	54	106	87	172		219	32	66	48	83	129	153
Ward 1, Totals	799	513	110	69	107	64	109	518	108	194	207	398		532	59	109	99	160	304	335
Ward 2, Precinct 1	447	267	62	43	75	40	62	268	77	92	119	236		277	35	65	70	101	148	198
Ward 2, Precinct 2	363	216	48	41	58	37	47	216	63	76	118	169		231	36	45	51	84	115	164
Ward 2, Totals	810	483	110	84	133	77	109	484	140	168	237	405		508	71	110	121	185	263	362
Ward 3, Precinct 1	558	384	45	33	96	37	46	373	102	62	138	358		393	28	36	101	93	192	273
Ward 3, Precinct 2	413	262	54	25	72	22	57	253	81	79	69	265		265	21	53	74	76	130	207
Ward 3, Precinct 3	427	254	82	44	47	35	99	232	61	120	98	209		261	32	89	45	94	144	189
Ward 3, Totals	1,398	900	181	102	215	94	202	858	244	261	305	832		919	81	178	220	263	466	669
Ward 4, Precinct 1	426	217	100	26	83	21	104	208	93	125	79	222		214	24	105	83	91	99	236
Ward 4, Precinct 2	396	131	168	40	57	35	172	125	64	197	55	144		135	30	174	57	118	83	195
Ward 4, Precinct 3	457	132	232	34	59	28	237	133	59	262	71	124		142	30	238	47	160	98	199
Ward 4, Totals	1,279	480	500	100	199	84	513	466	216	584	205	490		491	84	517	187	369	280	630
Ward 5, Precinct 1	499	223	176	23	77	21	180	220	78	209	79	211		240	17	179	63	141	150	208
Ward 5, Precinct 2	456	143	273	13	27	9	281	138	28	305	31	120		142	10	278	26	162	128	166
Ward 5, Precinct 3	419	66	308	21	24	12	321	63	23	322	35	62		67	13	309	30	200	78	141
Ward 5, Totals	1,374	432	757	57	128	42	782	421	129	836	145	393		449	40	766	119	503	356	515

Ward 6, Precinct 1	442	133	213	37	59	36	201	137	68	232	77	133		135	35	211	61	142	101	199
Ward 6, Precinct 2	471	190	215	23	43	21	209	190	51	251	57	163		195	20	214	42	125	123	223
Ward 6, Precinct 3	503	90	339	28	46	22	339	92	50	361	39	103		99	21	343	40	193	94	216
Ward 6, Totals	1,416	413	767	88	148	79	749	419	169	844	173	399		429	76	768	143	460	318	638
Ward 7, Precinct 1	483	64	336	20	63	19	364	58	42	379	28	76		68	16	349	50	179	115	189
Ward 7, Precinct 2	520	233	208	23	56	22	210	232	56	238	70	212		233	23	210	54	163	129	228
Ward 7, Precinct 3	470	125	270	35	40	28	268	134	40	289	73	108		128	54	254	34	165	113	192
Ward 7, Totals	1,473	422	814	78	159	69	842	424	138	906	171	396		429	93	813	138	507	357	609
Ward 8, Precinct 1	401	128	226	10	37	10	225	125	41	240	38	123		130	11	225	35	156	109	136
Ward 8, Precinct 2	436	121	261	16	38	12	266	116	42	287	44	105		129	9	254	44	181	86	169
Ward 8, Precinct 3	453	289	102	25	37	22	106	286	39	119	90	244		304	15	99	35	112	154	187
Ward 8, Totals	1,290	538	589	51	112	44	597	527	122	646	172	472		563	35	578	114	449	349	492
Ward 9, Precinct 1	605	134	409	15	47	10	424	131	40	455	40	110		135	9	412	49	252	128	225
Ward 9, Precinct 2	600	263	257	22	58	24	261	264	51	298	90	211	1	268	20	263	49	184	156	260
Ward 9, Totals	1,205	397	666	37	105	34	685	395	91	753	130	321	1	403	29	675	98	436	284	485
Ward 10, Precinct 1	432	71	336	9	16	8	336	73	15	365	20	47		71	6	333	22	191	85	156
Ward 10, Precinct 2	552	272	218	21	41	17	222	264	49	245	76	231		282	21	215	34	171	159	222
Ward 10, Totals	984	343	554	30	57	25	558	337	64	610	96	278		353	27	548	56	362	244	378
Ward 11, Precinct 1	651	219	339	34	59	24	347	219	61	400	72	179		237	21	352	41	212	178	261
Ward 11, Precinct 2	622	401	129	29	63	26	130	392	74	168	140	314		416	20	126	60	162	199	261
Ward 11, Totals	1,273	620	468	63	122	50	477	611	135	568	212	493		653	41	478	101	374	377	522
Grand Totals	13,301	5,541	5,516	759	1,485	662	5,623	5,460	1,556	6,370	2,053	4,877	1	5,729	636	5,510	1,396	4,068	3,598	5,635

MUNICIPAL ELECTION, DECEMBER 15, 1903.

CANDIDATES FOR

Names of Candidates.	Mayor.						Assessor.						License Question.		
	Whole Number	Augustine J. Daly.	John H. H. McNamee.	Thomas A. Scott.	Scattering.	Blank.	James T. Barrett.	Saul Beaumont	Jeremiah F. Donovan.	Andrew J. Pollock.	Scattering.	Blank.	Yes.	No.	Blank.
Wd. 1, Prec. 1	489	103	375	3		8	353	8	93	10		25	259	160	70
Wd. 1, Prec. 2	444	119	317	3		5	285	8	112	21		18	206	187	51
Wd. 1, Totals..	933	222	692	6		13	638	16	205	31		43	465	347	121
Wd. 2, Prec. 1	571	144	413	3	4	7	405	7	128	19		12	276	241	54
Wd. 2, Prec. 2	457	94	353		1	9	324	4	99	12		18	197	202	58
Wd. 2, Totals..	1,028	238	766	3	5	16	729	11	227	31		30	473	443	112
Wd. 3, Prec. 1	671	99	562	6	1	3	504	9	118	17		23	343	226	102
Wd. 3, Prec. 2	475	97	363	7		8	328	9	109	13		16	233	193	49
Wd. 3, Prec. 3	472	127	330	8	1	6	287	10	135	21		19	180	226	60
Wd. 3, Totals..	1,618	323	1,255	21	2	17	1,119	28	362	51		58	762	645	211
Wd. 4, Prec. 1	489	112	359	6		12	289	11	129	18		42	239	178	72
Wd. 4, Prec. 2	470	259	180	13	3	15	138	16	257	38		21	141	282	47
Wd. 4, Prec. 3	563	351	190	10		12	154	13	332	32		32	131	386	46
Wd. 4, Totals..	1,522	722	729	29	3	39	581	40	718	88		95	511	846	165
Wd. 5, Prec 1	590	251	328	1	1	9	265	3	283	21		18	166	369	55
Wd. 5, Prec. 2	486	323	154	2	1	6	121	5	333	17		10	82	384	20
Wd. 5, Prec. 3	449	364	77	5	1	2	57	4	354	27		7	62	370	17
Wd. 5, Totals..	1,525	938	559	8	3	17	443	12	970	65		35	310	1,123	92
Wd. 6, Prec. 1	551	321	193	18	2	17	161	22	290	43		35	167	318	66
Wd. 6, Prec. 2	597	320	252	11	1	13	223	12	291	42		29	194	365	38
Wd. 6, Prec. 3	557	420	131	4		2	112	8	375	46		16	89	441	27
Wd. 6, Totals..	1,705	1,061	576	33	3	32	496	42	956	131		80	450	1,124	131
Wd. 7, Prec. 1	554	445	91	8		10	73	9	405	54		13	107	417	30
Wd. 7, Prec. 2	620	267	338	6		9	288	7	285	17		23	186	356	78
Wd. 7, Prec. 3	561	335	211	5		10	175	6	310	45		25	143	369	49
Wd. 7, Totals..	1,735	1,047	640	19		29	536	22	1,000	116		61	436	1,142	157
Wd. 8, Prec. 1	442	286	147	2	2	5	139	5	263	18	1	16	89	321	32
Wd. 8, Prec. 2	498	366	126	2		4	109	3	3 0	23		13	99	362	37
Wd. 8, Prec. 3	532	138	384		1	9	350	2	146	12		22	220	254	58
Wd. 8, Totals..	1,472	790	657	4	3	18	598	10	759	53	1	51	408	937	127
Wd. 9, Prec. 1	677	535	135		1	6	122	5	509	26		15	127	507	43
Wd. 9, Prec. 2	705	366	326	5	1	7	298	8	352	26		21	229	411	65
Wd. 9, Totals..	1,382	891	461	5	2	13	420	13	861	52		36	356	918	108
Wd. 10, Prec. 1	453	379	67	2		5	61	2	352	24		14	39	386	28
Wd. 10, Prec. 2	593	290	291	4	1	7	276	6	283	11		17	182	366	45
Wd. 10, Totals	1,046	669	358	6	1	12	337	8	635	35		31	221	752	73
Wd. 11, Prec. 1	691	426	250	4		11	248	6	367	53	1	16	154	484	53
Wd. 11, Prec. 2	687	164	501	5	3	14	447	9	172	28		31	245	374	68
Wd. 11, Totals	1,378	590	751	9	3	25	695	15	539	81	1	47	399	858	121
Grand Totals..	15,344	7,501	7,444	143	25	231	6,592	217	7,232	734	2	567	4,791	9,135	1,418

SCHOOL COMMITTEE FOR THREE YEARS.

	At Large.				Ward 2.				Ward 5.			Ward 7.			Ward 9.		
Whole Number.	Carolyn P. Chase.	J. Henry Duckrey.	Scattering.	Blank.	Philip M. Fitzsimons	Edward J. Kronan.	Scattering.	Blank.	J. Henry Russell.	Scattering.	Blank.	William P. Davis.	James A. Lew.	Blank.	George A. Perkins.	William T. Piper.	Blank.
507	82	342		83	341	88		78	89		418	331	61	115	331	62	114
461	129	283		49	269	125		67	139		322	266	107	88	255	104	102
968	211	625		132	610	213		145	228		740	597	168	203	586	166	216
603	117	379		107	393	115		95	127		476	342	88	173	329	87	187
484	87	315		82	334	86		64	117		367	293	71	120	295	73	116
1,087	204	694		189	727	201		159	244		843	635	159	293	624	160	303
716	84	515		117	506	71		139	86		636	483	56	177	470	56	190
494	77	336		81	336	69		89	98		396	311	59	124	304	70	120
490	135	290		65	292	110		88	130		360	280	108	102	269	112	109
1,700	296	1,141		263	1,134	250		316	308		1,392	1,074	223	403	1,043	238	419
498	102	322		74	286	90		122	117	1	380	266	98	134	253	88	157
501	287	156		58	169	252		80	274		227	155	242	104	139	248	114
641	396	177		68	187	342		112	376		265	173	351	117	169	350	122
1,640	785	655		200	642	684		314	767	1	872	594	691	355	561	686	393
654	299	291		64	295	265		94	303		351	269	262	123	258	269	127
607	427	152		28	177	382		48	427		180	160	386	61	157	394	56
645	554	73		18	102	506		37	555		90	77	519	49	69	532	44
1,906	1,280	516		110	574	1,153		179	1,285		621	500	1,167	233	484	1,195	227
587	344	177		66	168	310		109	321		266	163	303	121	153	304	130
661	356	236		69	237	309		115	354		307	227	309	125	216	320	125
679	531	104		44	132	488		59	517		162	114	489	76	111	505	63
1,927	1,231	517		179	537	1,107		283	1,192		735	504	1,101	322	480	1,129	318
720	596	85		39	84	551		85	573		147	86	559	75	69	568	83
706	316	327		63	331	270		105	309		397	317	299	90	298	297	111
648	403	186		59	204	369		75	390	1	257	195	371	82	174	368	106
2,074	1,315	598		161	619	1,190		265	1,272	1	801	598	1,229	247	541	1,233	300
621	416	178		27	265	313	1	42	414		207	170	400	51	166	407	48
700	536	123		41	149	493		58	534		166	130	506	64	126	520	54
588	162	367		59	377	137		74	161	1	426	373	140	75	365	147	76
1,909	1,114	668		127	791	943	1	174	1,169	1	799	673	1,046	190	657	1,074	178
978	822	114		42	256	654		68	809		169	141	763	74	133	801	44
880	497	324		59	374	425		81	496		384	319	463	98	331	482	67
1,858	1,319	438		101	630	1,079		149	1,305		553	460	1,226	172	464	1,283	111
63	537	81		17	131	464		40	523		112	87	503	45	87	515	33
780	419	320		41	369	352		59	412		368	325	388	67	324	395	61
1,415	956	401		58	500	816		99	935		480	412	891	112	411	910	94
779	481	247	1	50	275	430		74	460		319	257	417	105	242	439	98
735	167	489		79	483	142		110	195	2	538	464	141	130	453	146	136
1,514	648	736	1	129	758	572		184	655	2	857	721	558	235	695	585	234
17,998	9,359	6,989	1	1,649	7,522	8,208	1	2,267	9,300	5	8,693	6,774	8,459	2,765	6,546	8,659	2,793

CANDIDATES FOR ALDERMEN.

NAMES OF CANDIDATES.	John Allen.	William T. Anderson.	Michael J. Anglin.	Joseph O. Authier.	Edward A. Barnard.	J. Edward Barry.	Warren K. Blodgett.	Nicholas F. Burke.	Hans L. Carstein.	Edgar E. Chester.	Willard P. Cooney.	John W. Coveney.	Joseph Crowley.	Edwin A. Cutting.	William R. Davis.	John W. Ducharme.	Michael H. Flynn.	Nils T. Fuglestad.	Michael J. Gavin.	Stephen H. Harrington	John T Hart.	Edward B. James.	George Keefe.	Charles H. Lake.	Thomas McDermott.	Matthew McDonald.	Edward H. McDuffee.	Emory T. Morris	John T. Morris.	John Shaughnessy.	Alexander J. Sullivan.	Walter P. Thorne.	Joseph R. Tierney.	Charles W. Ussher.	John J. Wall.	Gustave Wilson.	Scattering.	Blank.
WARD 1.																																						
Prec. 1.....	120	75	334	320	74	344	77	335	89	5	10	96	6	67	75	3	333	9	4	354	342	328	7	70	314	9	310	64	3	13	346	4	3	5	6	59		766
" 2.....	121	92	271	269	97	279	101	269	114	5	9	123	11	90	104	10	279	3	15	291	288	273	13	90	263	11	256	78	6	9	278	4	5	6	3	76		672
Wd. 1 Tot's	241	167	605	589	171	623	178	604	203	10	19	219	17	157	179	13	612	12	19	645	630	601	20	160	577	20	566	142	9	22	624	8	8	11	9	135		1438
WARD 2.																																						
Prec. 1.....	109	89	367	363	85	379	99	369	120	9	12	137	9	80	98	14	373	9	14	397	377	371	9	87	354	11	355	79	7	8	375	9	7	4	6	79		1011
" 2.....	79	71	304	297	69	314	74	312	91	7	10	89	7	62	72	3	310	6	9	325	306	305	6	70	303	5	297	58	5	13	315	6	2	2	5	52		766
Wd. 2 Tot's	188	160	671	660	154	693	173	681	211	16	22	226	16	142	170	17	683	15	23	722	683	676	15	157	657	16	652	137	12	21	690	15	9	6	11	131		1777
WARD 3.																																						
Prec. 1.....	76	67	488	479	74	488	80	481	85	8	15	89	12	57	80	12	492	9	12	520	486	488	10	70	490	13	485	58	11	13	480	11	11	9	5	49		1074
" 2.....	78	74	325	325	75	334	73	326	87	7	12	82	14	63	90	12	331	5	15	359	312	328	17	65	327	14	324	70	9	12	311	8	9	10	7	52		663
" 3.....	114	113	288	279	106	290	112	278	133	8	19	122	19	104	122	13	289	9	17	306	276	287	15	105	273	16	277	101	11	16	276	15	12	14	4	102		651
Wd. 3 Tot's	268	254	1101	1083	255	1112	265	1085	305	23	46	293	45	224	292	37	1112	23	44	1185	1068	1103	42	240	1090	43	1086	229	31	41	1067	34	32	33	16	203		2388
WARD 4.																																						
Prec. 1.....	101	90	304	295	94	314	95	301	100	4	14	98	13	90	89	11	306	3	11	314	282	300	15	84	318	15	295	87	12	11	295	9	6	6	5	73		919
" 2.....	233	226	161	151	222	168	226	147	246	10	23	226	20	219	234	17	188	13	20	166	152	157	22	218	170	19	165	203	16	13	159	17	15	12	3	208		705
" 3.....	331	318	160	162	317	172	317	159	339	16	13	325	13	318	326	10	180	12	15	171	150	160	17	315	162	15	165	296	14	15	161	14	11	16	7	301		700
Wd. 4 Tot's	665	634	625	608	633	654	638	607	685	30	50	649	46	627	649	38	674	28	46	651	584	617	54	617	650	49	625	586	42	39	615	40	32	34	15	582		2324
WARD 5.																																						
Prec. 1.....	236	232	272	280	231	301	238	271	261	7	7	246	8	225	245	6	294	6	7	308	279	289	7	228	277	7	285	214	3	11	279	3	1	2	2	203		719
" 2.....	310	294	134	140	299	157	313	143	316	6	6	311	4	301	312	4	147	2	5	143	140	148	5	314	136	2	133	290	...	2	135	3	3	4	5	282		397
" 3.....	360	354	59	63	355	69	360	55	378	7	4	352	6	352	350	9	63	6	4	65	58	69	6	353	58	5	60	343	6	3	60	4	4	6	2	336		295
Wd. 5 Tot's	906	880	465	483	885	527	911	469	955	20	17	909	18	878	907	19	504	14	16	516	477	506	18	895	471	14	478	847	9	16	474	10	8	12	9	821		1411

WARD 6.																																							
Prec. 1	295	287	173	164	293	170	293	158	300	20	23	288	23	280	278	21	181	8	21	179	161	165	23	287	178	19	170	277	20	22	164	27	24	20	9	270		770
" 2.....	288	291	236	218	295	234	290	218	308	15	13	301	12	286	286	13	235	9	12	233	211	227	12	282	224	12	219	271	13	15	213	10	9	9	6	259		782
" 3	388	383	112	109	401	111	395	111	409	8	8	379	13	386	388	14	121	6	8	115	101	126	8	389	113	9	114	369	10	9	105	8	12	6	3	364		516
Wd. 6 Tot's	971	961	521	491	989	515	978	487	1017	43	44	968	48	952	952	48	537	23	41	527	473	518	43	958	515	40	503	917	43	46	482	45	45	35	18	893		2068
WARD 7.																																						
Prec. 1.....	431	414	72	66	427	75	426	68	447	9	14	425	8	428	424	12	76	4	9	72	68	80	8	416	67	6	75	405	8	11	62	12	7	8	5	398		551
" 2.....	253	259	280	295	257	315	256	295	283	7	11	259	10	246	248	9	315	8	8	316	291	313	10	249	292	10	296	245	6	12	293	7	7	11	1	231		616
" 3.....	329	305	192	177	315	196	319	182	345	7	12	318	7	318	319	7	190	5	11	190	190	197	9	312	183	9	181	311	5	9	179	6	3	13	7	300		513
Wd. 7 Tot's	1013	978	544	538	999	586	1001	545	1075	23	37	1002	25	992	991	28	581	17	28	578	549	590	27	977	542	25	552	961	19	32	534	25	17	32	13	929		1680
WARD 8.																																						
Prec. 1.....	277	279	125	131	282	133	282	132	291	3	4	270	4	279	273	3	134	2	1	133	126	136	2	276	128	2	129	279	7	2	128	2	1	2	1	264	4	335
" 2.....	348	341	104	104	344	115	351	102	361	2	5	350	6	338	349	3	109	4	4	111	99	122	2	314	101	5	100	332	6	3	107	5	2	2	2	325		467
" 3.....	127	132	345	349	128	355	135	348	148	2	5	126	6	123	131	4	354	4	2	352	337	354	1	138	336	3	341	116	2	4	346	2	1	4	...	112		579
Wd. 8 Tot's	752	752	574	584	754	603	771	582	800	7	14	746	16	740	753	10	597	10	7	596	562	612	5	758	565	10	570	727	15	9	581	9	4	8	3	701	4	1381
WARD 9.																																						
Prec. 1.....	514	512	121	127	505	128	529	119	533	6	3	505	7	511	512	2	126	5	1	132	114	140	1	514	116	1	118	499	5	2	117	4	1	3	3	489		422
" 2	336	332	309	308	333	313	348	315	349	9	6	339	9	331	333	9	314	6	10	313	296	317	11	339	299	8	306	324	8	6	304	5	7	7	5	319		572
Wd. 9 Tot's	850	844	430	435	838	441	877	434	882	15	9	844	16	842	845	11	440	11	11	445	410	457	12	853	415	9	424	823	13	8	421	9	8	10	8	808		994
WARD 10.																																						
Prec. 1.....	366	359	58	63	362	64	373	64	380	1	4	363	2	362	360	3	63	6	3	63	59	66	3	357	58	5	57	351	1	2	58	1	1	3	..	356		286
" 2.....	276	265	272	291	264	288	269	290	285	9	5	274	7	262	265	9	281	7	4	285	263	283	4	257	273	7	274	255	6	5	274	4	5	5	4	246	2	448
Wd. 10 Tot's	642	624	330	354	626	352	642	354	665	10	9	637	9	624	625	12	344	13	7	348	322	349	7	614	331	12	331	606	7	7	332	5	6	8	4	602	2	734
WARD 11.																																						
Prec. 1.....	395	391	227	244	386	237	396	243	431	12	9	390	5	390	393	5	231	8	6	235	222	228	3	392	217	4	230	374	6	6	224	4	3	2	3	369	1	679
" 2.....	169	153	437	463	149	445	165	449	194	15	12	161	13	149	163	7	445	13	6	453	424	447	8	150	439	8	443	140	7	9	443	7	6	6	9	135		815
Wd. 11 Tot's	564	544	664	707	535	682	561	692	625	27	21	551	18	539	556	12	676	21	12	688	646	675	11	542	656	12	673	514	13	15	667	11	9	8	12	504	1	1494
Gr'nd Tot's	7060	6798	6530	6532	6839	6788	6995	6540	7423	224	288	7044	274	6717	6919	245	6760	187	254	6901	6404	6704	254	6771	6469	250	6460	6489	213	256	6487	211	178	197	118	6309	7	17,689

CANDIDATES FOR COMMON COUNCIL.

WARD ONE.

	Daniel J. Dinan.	John J. McMakin.	Peter F. McSorley.	Frederick Pfleiger.	Blank.
Precinct 1	399	65	344	53	117
" 2	286	100	297	86	119
Ward 1, Totals	685	165	641	139	236

WARD TWO.

	Edmund D. Connor.	William M. Hogan.	Thomas F. Holland.	Maurice Reardon.	Horace P. Tuttle.	Blank.
Precinct 1	115	392	17	375	93	150
" 2	79	330	14	321	63	107
Ward 2, Totals	194	722	31	696	156	257

WARD THREE.

	Daniel Cronin.	Jeremiah F. Downey.	John J. Hertach.	William H. Joyce.	Thomas F. Keefe, Jr.	Blank.
Precinct 1	512	547	59	69	15	140
" 2	335	358	68	65	17	107
" 3	295	300	107	108	22	112
Ward 3, Totals	1,142	1,205	234	242	54	359

CANDIDATES FOR COMMON COUNCIL.

WARD FOUR.

	Herman Erhardt.	James P. Kneeland.	James F. Purcell.	James A. Rogers.	Michael J. Shea.	John B. Smithers.	Blank.
Precinct 1	17	326	23	309	101	87	115
" 2	32	155	27	159	234	231	102
" 3	22	167	27	159	292	330	129
Ward 4, Totals	71	648	77	627	627	648	346

WARD FIVE.

	Lester B. Harlow.	John S. Kenney.	Sidney J. Monk.	Edward F. Savage.	Blank.
Precinct 1	236	299	230	286	129
" 2	314	144	305	151	58
" 3	365	59	351	66	57
Ward 5, Totals	915	502	886	503	244

WARD SIX.

	William L. Casey.	George A. Giles.	Leon Gustin.	Harry W. Joel.	John F. McKenna.	Nicholas J. O'Shaughnessy	Lewis G. Spachman.	Blank.
Precinct 1	159	263	29	226	145	91	18	171
" 2	203	250	11	228	213	127	12	150
" 3	96	377	12	290	99	123	7	110
Ward 6, Totals	458	890	52	744	457	341	37	431

WARD SEVEN.

	James L. Berkeley.	George B. Caswell.	James A. Drinkwater.	Joseph P. Leary.	Felix H. Loubris.	Julius Meyers.	Blank.
Precinct 1	70	438	14	67	11	427	81
" 2	316	251	14	292	13	256	98
" 3	198	313	13	189	7	320	82
Ward 7, Totals	584	1,002	41	548	31	1,003	261

CANDIDATES FOR COMMON COUNCIL.

WARD EIGHT.

	John P. Brennan.	Samuel D. Elmore.	George Stephens.	James H. Stokes.	Blank.
Precinct 1	140	285	272	139	48
" 2	129	341	350	114	62
" 3	388	125	124	349	78
Ward 8, Totals	657	751	746	602	188

WARD NINE.

	Mortimer Gallivan.	Peter J. Kenney.	Harry N. Stearns.	Charles Walcott.	Blank.
Precinct 1	123	119	528	524	60
" 2	313	301	354	347	95
Ward 9, Totals	436	420	882	871	155

WARD TEN.

	Edward P. Clark.	Joseph A. Fegan.	Farwell E. Thayer.	Russell A. Wood.	Blank.
Precinct 1	68	55	366	368	49
" 2	290	272	265	255	104
Ward 10, Totals	358	327	631	623	153

WARD ELEVEN.

	Olmore C. Francis.	David J. Nelligan.	Thomas P. O'Neil.	Lubin Paradis.	Scattering.	Blank.
Precinct 1	434	241	227	374	2	104
" 2	149	462	460	161	.....	142
Ward 11, Totals	583	703	687	535	2	246

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